LEGITIMACY 2.0

E-DEMOCRACY AND PUBLIC OPINION IN THE DIGITAL AGE

Edited by

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Digital democracy has been cutting the edge in fields connected to legal, political and social theory over the last two decades but cross-fertilization and transdisciplinary approaches are still scarce. The impact of ICTs on political and governance processes seem elusive to traditional theoretical settings and mainstream conceptualizations. This is a selection of peer-reviewed conference papers originally presented at the workshop Legitimacy 2.0: E-democracy and Public Opinion in the Digital Age*, at the IVR World Congress held in Frankfurt, August 18th 2011. They are also being published in the Law, Technology and Society - Proceedings XXV World Congress of IVR Special Workshop on "Legitimacy 2.0: E-democracy and Public Opinion in the Digital Age", Paper series B, ed. by Ulfrid Neumann, Goethe University, Frankfurt am Main 2012. These papers offer different approaches to findings in the field, the purpose being to go beyond the polarization between the apologists that hold the web to overcome the one-to-many architecture of opinion-building in traditional democratic legitimacy, and the critics that warn cyberoptimism entails authoritarian technocracy.*

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Updating Democracy Studies: Outline of a Research Program

Abstract: Technologies carry politics since they embed values. It is therefore surprising that mainstream political and legal theory have taken the issue so lightly. Compared to what has been going on over the past few decades in the other branches of practical thought, namely ethics, economics and the law, political theory lags behind. Yet the current emphasis on Internet politics that polarizes the apologists holding the web to overcome the one-to-many architecture of opinion-building in traditional representative democracy, and the critics that warn cyber-optimism entails authoritarian technocracy has acted as a wake up call. This paper sets the problem – "What is it about ICTs, as opposed to previous technical devices, that impact on politics and determine uncertainty about democratic matters?" – into the broad context of practical philosophy, by offering a conceptual map of clusters of micro-problems and concrete examples relating to "e-democracy". The point is to highlight when and why the hyphen of e-democracy has a conjunctive or a disjunctive function, in respect to stocktaking from past experiences and settled democratic theories. My claim is that there is considerable scope to analyse how and why online politics fails or succeeds. The field needs both further empirical and theoretical work.
Keywords: Democracy, Internet, Ethics, Technology, ICTs, Political Theory, Legal Theory

I. The bleeding edge?

In the December issue 2010 of *Foreign Affairs* the chair and CEO of Google, Eric Schmidt and the Director of Google ideas, Jared Cohen, declared that "the advent and power of connection technologies (…) will make the 21st century all about surprises. Governments will be caught off-guard when large numbers of their citizens, armed with virtually nothing but cell phones, take part in mini-rebellions that challenge their authority".[1] The democratization of communications, the theory goes, will bring about the democratization of the world. This vision, and the rhetoric it feeds on, seems to have been supported by plenty of evidence: digital militants appeared by the minute, including the Philippino "sms revolution" that forced President Estrada from office (2001), flash-mobs in Ukraine that led to the "Orange Revolution" (2004), monks in Burma armed with digital cameras joined the collaborative enterprise of exposing repression in what was labelled the "Saffron Revolution", the Columbian anti-farc demonstrations organized on FB by the unemployed engineer Oscar

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[1] Eric Schmidt, Jared Cohen, The Digital Disruption. Connectivity and the Diffusion of Power, *Foreign Affairs* (2010) Nov/Dec, 75.

Morales, Lebanese email-use prompting Syrian troupe-withdrawal or "Cedar Revolution" (2005), the Venezuelan student movement that kept Radio Caracas Television onto Youtube (2007), the Ushahidi "crisis-mapping" in the Kenyan 2008 postelection violence reporting, the *Charter 08* in China that – notwithstanding the Great firewall and the 50 cent party[2] – garnered most of its signatures though blog sites such as *bullog.cn*, the Twitter-conveyed crowds in Chisinau in 2009, the Uighur demonstrations that were being posted on microblogs in 2009 even after the Chinese authorities shut down the Internet connections in the Xinjiang-region, the Iranian presidential election protests or "Green movement" that was quickly redubbed the "Twitter revolution".[3] And all this was before Mohamed Bouzazi's sacrifice set the *dégage*-movement on the map, ultimately leading to the outing of Ben Ali as a starter for what currently goes under the appellative "Arab Spring". In hindsight, it is ironic that Tunis hosted the World Summit of Information Society in November 2005 that instituted the new UN "forum for multi-stakeholder dialogue", i.e. the *Internet Governance Forum*.

Add to this, new practices such as sns-collected smart-mobs, sms-gathered participatory budgeting, circumvention methods protecting netizens' anonymity such as the free software Tor, as well as the fact that the net provides low cost pretty safe ICTs (skype is notoriously hard to wiretap), thus the higher risks authoritarian regimes might need to take in perpetrating repression, the relative ease in accessing non-government controlled media (the 2011 Italian referenda have been praised in these terms), let alone the hope many have in seeing flash mobs and web 2.0 apps transform undecided subjects into active protesters – following the connection between informational cascades and what Susanne Lohmann viewed as peer pressure in pulling down the Berlin wall[4] – all this, and more, make for an undiscriminating halleluiah that, in some ways, recall similarly overenthusiastic hopes following the "third wave" of democratization, named after Samuel Huntington's 1991 best-seller.

In February 2011, Manuel Castells – who wrote the famous information era-trilogy that turned out to be an eye-opener for many social scientists in the "networked society"[5] – claimed: "these popular insurrections in the Arab world constitute a turning point in the social and political history of humanity. And perhaps the most important of the internet-led and facilitated changes in all aspects of life, society, the economy and culture. And this is just the

[2] The "Great firewall" is the system of filters and re-routers, detours and dead-ends designed through TRS technologies to keep Chinese Internet users on the state-approved online path and the 50 cent party, an army of online commentators that are paid so much for their posts promoting the CCP); both phenomena are usually presented as a quasi-Orwellian cyberspace control.

[3] Richard G. Lugar, Twitter vs. Terror, *Foreign Policy* (2010) 6/1.

[4] Susanne Lohmann, The Dynamics of Informational Cascades: The Monday Demonstrations in Leipzig, East Germany 1989-91, *World Politics*, Vol. 47, No. 1 (Oct. 2004), 42-101.

[5] Manuel Castells, The Rise of the Network Society. The Information Age: Economy, Society and Culture Vol. I-III, Blackwell, Oxford 1996-98.

start"[6]. This is consistent with his overall claim that "the process of formation and exercise of power relationships is decisively transformed in the new organisational and technological context derived from the rise of global digital networks of communication as the fundamental symbol-processing system of our time".[7] By a similar token, Milad Doueihi, an analyst of digital cultures, sees that "la culture numérique est porteuse de changement radical (…). La Tunisie comme l'Egypte symbolisent ce changement porté par le numérique: quelques noms propres, un lieu et la foule".[8] A fine observer of our time with the Frankfurt School's interest for techniques, Jürgen Habermas prognosticated that "the Internet has certainly reactivated the grassroots of an egalitarian public", even though he also pointed out that "the web can claim unequivocal *democratic* merits only for a special context: It can undermine the censorship of authoritarian regimes that try to control and repress public opinion. In the context of liberal regimes, the rise of millions of fragmented chat rooms across the world tend instead to lead to the fragmentation of large but politically focused mass audiences into a huge number of isolated issue publics".[9]

It is noteworthy that the praise of the political consequences of the massive use of ICTs is occurring just as a wave of so-called cyber-pessimism is sweeping across many sectors of the digitally sensible world of culture. A closer look at "liberation technologies"[10] and the political use of new media and ICTs[11] suggest a more complicated reality: technological advances are no substitute for human wisdom. Many observe how "the tools of modern communications satisfy as wide a range of ambitions and appetites as their 20th century ancestors did, and many of these ambitions and appetites do not have anything to do with democracy"[12]. As an example of the growing unease with the general celebratory mood, The Edge's special 2010 issue should be mentioned, where John Markoff affirmed that, from Arpanet to the Internet, we are in the midst of a "post-industrial dystopia" in which the web is opening Pandora's box. In the same period, *Prospect* published a much commented debate between Clay Shirky – *inter alia* author of the techno-optimistic *Here Comes Everybody: The Power of Organizing Without Organizations* (2008) – and Evgueni Morozov, author of eloquently entitled *The net delusion* (2011) where the latter argues that the Internet is subject

[6] Philippe Aigrain, The Future of Democracy (2011) at http://paigrain.debatpublic.net/wp-content/uploads/Thefutureofdemocracy-withnotes.pdf (accessed 11/07/2011).
[7] Manuel Castells, Communication Power, OUP, Oxford 2009, 4.
[8] See Aigrain (note 6).
[9] Jürgen Habermas, Political Communication in Media Society: Does Democracy Still Enjoy an Epistemic Dimension? The Impact of Normative Theory on Empirical Research, *Communication Theory*, 16 (2006), 423.
[10] Larry Diamond, Liberation Technology, *Journal of Democracy*, July (2010) 3, 69-83.
[11] Nick Anstead, Andrew Chadwick, Philip N. Howard (eds.) Routledge Handbook of Internet Politics, London 2009.
[12] Ian Bremmer, Democracy in Cyberspace. What Information Technology can and cannot do, *Foreign Affairs* (2010) Nov/Dec, 86.

to the power of the state and therefore is largely impotent as a mechanism for promoting democracy. He shows that, throughout the world, the Internet is (a) more likely to be used for entertainment purposes or as a global shopping mall (e.g. the current angry birds mania), (b) censored in ways that are not easily surmountable (e.g. arrest and detainment of cyber-dissidents), (c) used as a tool for propaganda (e.g. China's 50 cent party or Hugo Chavez's turn over from netcensor to famous twitter), and (d) used for spying on dissidents: in Belorussia, for instance, the authorities started surveilling *By_mob* where the community *LiveJournal* announced its meetings: not only did the Police arrest the demonstrators, but pictures were taken of the people present so they could be easily spotted on social media; in the "Twitter revolution" dissidents discussed relatively freely on *Goodreads*, away from their censors, until the Los Angeles Times published an article on the phenomenon. Authoritarian states learn pretty quickly and Iranian communications officials anonymously created websites encouraging people to post pictures of the protests so they could identify, track and, sometimes, detain the protesters.[13]

The aim of this paper is not to fuel the enthusiasm of those who see a new form of democracy burgeoning, nor to take the conservative stance *sub soli nihil novi* or drop the realist remark that technology does not only change the world but, as in all feedback loops, "the world is changing internet".[14] Rather, this paper will outline how we can possibly address in problematically fertile terms the question of "what does e add to democracy?"

II. E-democracy between Science, Technology and Politics

I will start by stressing that for e-democracy to be an interesting problem for philosophical enquiry it needs to constitute a problem (*i*) rich in consequences, (*ii*) clearly defined and/or definable, (*iii*) accessible, in the meaning easy to understand but hard to solve, (*iv*) intrinsically open, leaving disagreement as a viable option. This paper shall evidently not transform the topic, which is still something of a moving target, into such a well-defined problem of philosophical enquiry since such a task goes well beyond the purposes of an introductory workshop but, at least, I shall attempt to draw a conceptual map of questions that need to be addressed – or better, of clusters of micro-problems – and that cannot be easily articulated unless we take the "e" of democracy seriously.

Moreover, a word on democracy as a form of government is needed. It has over the ages been associated with a variety of adjectives: direct, representative, procedural, formal, substantial, social, liberal, constitutional, epistemic, deliberative, participative… and last but

[13] See Schmidt, Cohen (note 1) at 82.
[14] See Bremmer (note12) at 91.

not least "real". The conceptual typologies of democratic regimes (parliamentary/presidential, bi- and multipartisan, coalescent, consociated, concordant, populist, plebiscitarian, polyarchic etc.) also span over a vast amount of different organisations, just like the broad variety of historical experiences associated with it, does. Some even go as far as to claim that we are dealing with an "essentially contested concept".[15] There is, however, reason to believe this is not so, and the 20th century tradition of though in theory of democracy offers some evidence in that direction.[16] For our present purposes I shall keep the broad connotations in the background and keep the constraints to a minimum (that some will surely feel are embarrassingly low), i.e. conceiving democracy quite generically to be a method for taking collective decisions, that historically relates to a set of values (e.g. peaceful resolution of conflicts) and that has a set of social conditions (e.g. formal citizenship status) as well as a set of legally guaranteed preconditions (e.g. freedom of speech). I am aware of the imperfect nature of the characterisation but it leaves us, in tackling e-democracy, with a sufficiently open texture definition to take in most practices, experiences, and ideas associated with the (often equally unspecified) term "e-democracy".[17] A reason for adopting this generic conception is that, like in many other practical fields of enquiry, methodological holism keeps together the various problematic aspects raised by a topic so as to avoid creating an epistemic level of analysis that misses out on important observables; such as those, in our case connected to e-democracy even though not equal to its institutional manifestations (e.g. E-parliament, E-government etc.), such as first and foremost an accessible, non-censured and neutral web.

Let us start by two observations that do not seem to have been properly connected hitherto: the first concerns technology and the second politics.

The first observation is nicely presented with a quote by the father of cybernetics, Norbert Weiner: "It has long been clear to me that the modern ultra-rapid computing machine was in principle an ideal central nervous system to an apparatus for automatic control (…). Long before Nagasaki and the public awareness of the atomic bomb, it had occurred to me that we were here in the presence of another social potentiality of unheard-of importance for

[15] Bernard Crick, Democracy: A Very Short Introduction, OUP, Oxford 2002.
[16] E.g. Hans Kelsen, Von Wert und Wesen der Demokratie (1929), Eng. trad. On the essence and value of democracy. In: Weimar. A Jurisprudence of Crisis, eds. A. Jacobson and B. Schlink, University of California Press, LA 2000; Robert Dahl, A preface to democratic theory, Chicago University Press, Chicago 1956; Norberto Bobbio, The Future of Democracy, Polity Press, London 1987; org. Einaudi, Torino 1984; Giovanni Sartori, The Theory of Democracy Revisited, Chatham House, Chatham, N.J 1987.
[17] E.g. Thomas Zittel, Parliaments and the Internet: A Perspective on the State of Research. In: Parliaments in the Digital Age, ed. C. Leston-Bandeira, S. Ward *et al.*, Oxford Internet Institute, Forum Discussion Report 13, Jan 2008.

good and evil".[18] This first observation can readily be reformulated as follows: ICT is the fastest growing technology in history, "playing a cultural role far more influential than that of mills in the Middle Ages, mechanical clocks in the 17th century, and the loom or the steam engine in the age of the industrial revolution"[19] and this has led to the appearance of the infosphere, i.e. the environment in which millions of people spend their time nowadays. Only blind thoughtlessness could suppose that this has no impact on the relationships among people and the stewardship of our communities.

The second observation concerns the general silence of standard political and legal theory on the impact of technology on politics and law. Just to mark the point: for instance if one turns to John Rawls, an often acclaimed giant of contemporary political philosophy, he does not have much to say on the issue: in *Political liberalism*[20] he feels it is sufficient to stress that the rules of evidence are different in a scientific society from those of democratic politics. Many democratic theorists agree on this point. It is therefore not surprising that, even as the neologism was emerging, Seymour Lipset's *The Encyclopedia of Democracy* from 1995 has no entry for e-democracy. A quick look around in mainstream political theory shows an embarrassing void when it comes to making sense of what is going in the infosphere. Conversely, among the fields of research that are more conversant with e-democracy, such as theory of social communication and science and technology studies, seem largely unaware of the body of work that has been steadily growing in legal and political theory concerning the concept, limits and preconditions of democracy.

A similar point can be made for legal theory: An example is the fact that legal theorists often view technology in traditional terms of law being (merely) a system of social control through the determination of sanctions. This tendency can be found among traditional positive lawyers as well as among critical theorists that build on the Foucaultian notion of regulation as understood prevailingly in juridical terms. However, it should be clear by now that technology inscribes and constitutes as much as it prescribes. The lack of determinate and separate institutions of enforcement does not necessarily invalidate the idea of technological regulation: "Rather than relying on sanctions imposed after the fact to enforce its rules, [software] simply prevents the forbidden behaviour from occurring.[21] This is the key idea behind the aggressive digital technologies developed by some corporations in the entertainment business that forbear the "final user" from making "free use" of the product that

[18] Norbert Weiner, Cybernetics or Control and Communication in the Animal and the Machine, MIT press, Cambridge (Mass.) 1948, 27-28.
[19] Luciano Floridi, The Philosophy of Information, OUP, Oxford 2011, 5.
[20] John Rawls, Political Liberalism, Columbia Univ. Press, New York 1996.
[21] James Grimmelmann, Regulation by Software, *Yale Law Journal*, 114 (2005) 1723.

has been purchased, with the aim to hinder file-sharing or mash up: the aim of TPM (*technological protection measures)* or DRM (*digital rights management*) is to technologically prevent the very possibility of copyright infringement.

Of course this does not imply that political theory has not taken "technique" and "technology" into account: There is a longstanding tradition in critical theory focusing on *Technik* (e.g. Habermas' *Technology and Science as Ideology*), and many interesting investigations of the relationship of between democracy and science (e.g. Dewey, Pierce) just to mention two directions of study. A recurrent motif is also how technology and human agency have an impact on one another – and the old spectres of determinism and reductionism that has always haunted social sciences can sometimes loom here. Nevertheless, «one must mark the response of Critical Theory to these [technological] changes as an intellectual failure, not least because they have only a remote connection to actual science».[22] Perhaps in connection to this circumstance, mainstream political theorists, in developing 20th century democratic theory, usually viewed "science" – that, in our time, is inherently intertwined with technology – as playing a role in actual political settings such as bureaucracies, committees, counselling-bodies, independent authorities etc. but in a merely "instrumental" way, i.e. as playing "a role that is more or less akin to that played by a calculating machine (…). It must be conceded that governments have a need for technical knowledge just as government buildings needs plumbing. But no-one imagines that political theory has failed (…) to recognize the significance of plumbing. (…) It is commonly asserted that the goose-necked drainpipe did more to improve sanitation and consequently to lower mortality than all of the scientific discoveries of the 19th century combined. So perhaps plumbing deserves to be taken very seriously (…). This line of argumentation, however attractive, is simply wrong".[23] One of the reasons why democratic theory did not take on the challenge of accounting for science and technology in politics depends on the very tension between technocracy and democracy, stretching back at least to Saint Simon: "democracy is based on the hypothesis that everybody can decide on everything. Technocracy, on the contrary, claims that only the few that understand the issue should decide".[24]

Now, to the amazement of many digitally naturalized, there is a significant difference between information technology and plumbing. This difference, which seems to be technological at heart, implies that the conceptual distinction between *Zweckrationalität* and *Geltungsrationalität* is getting blurred. Heidegger who, in his acclaimed essay, *The Question*

[22] Stephen P. Turner, Liberal Democracy 3.0, Sage, London 2003, 3.
[23] See Turner (note 22) at 4.
[24] See Bobbio (note 16) at 22.

Concerning Technology, made this point clear – albeit in his customary oracle-style – by claiming that "the essence of technology is not technological":[25] modern technology, as opposed to premodern techniques, regulates human life through "enframing" (*Gestell*) and thus cannot be exhaustively explained in the functionalities it offers. It is not "neutral" in anyway near the goosenecked drainpipe and its constitutive aspect is today known in social and communication theory in terms of "framing". As Erving Goffman explains in *Frame Analysis: An essay on the organization of experience*, a frame consists of a schema of interpretation that individuals rely on to understand and respond to events. It relates to the construction and presentation of a fact or issue "framed" from a particular perspective. Framing is an effective heuristic, i.e. mental shortcut or cognitive bias, affecting the outcome of choice problems to the extent that several of the classic axioms of rational choice do not hold.[26] This dimension is to a large extent neglected, if not occulted, by traditional mainstream legal and political theory that classify and analyse forms of government, such as democracy.

It is noteworthy that the claim that (information) technology is neutral continues to pervade the debate on the political dimension of the digital revolution. The claim is usually made by pointing to the use made of a determinate technology by groups that are ascribed to different ends of the political spectrum, as if the traditional political spectrum right/left would be the ultimate orientation points in any possible discussion of the political use of technology. An example is the statement that Brazilian ecologists use *GoogleMaps* for showing the effects of deforestation, but *GoogleMaps* is also being used by the Russian extreme right movement against illegal immigration for determining the location of ethnic minorities in big cities.[27]

To rephrase it, technological information has a semantic dimension, involving "giving and making sense" of "reality". Information as semantic content can be seen as the upper level of the technological complex that marks our age.[28] Epistemologically, "information" however does not mean "belief" nor "knowledge", yet it is distinguishable from mere data, the uninterpreted differences of symbols or signs. Ontologically, "information is information, not matter or energy".[29] For our present purposes, let us adopt Floridi's terms: "semantic

[25] Martin Heidegger, The Question Concerning Technology And Other Essays, Harper & Row, New York 1977.
[26] Scott Plous, The Psychology of Judgment and Decision Making, McGraw-Hill, Columbus 1993; Amos Tversky, Daniel Kahneman, The Framing of Decisions and the Psychology of Choice, *Science*, 211 (1981) 453-458.
[27] Eugeny Morozov quoted in Olivier Postel-Vinay, Pour en finir avec le cyberoptimisme, Dossier Books n. 12, april 2010, 22.
[28] Yochai Benkler, The Wealth of Networks: How Social Production Transforms Market and Freedom, Yale Univ. Press, New Haven 2006.
[29] See Weiner (note 18) at 12.

information is well-formed, meaningful and truthful data".[30] This semantic dimension of technology should keep us from falling flatly into the widespread belief that technology is a means to the service of human ends, a form of passive universe of "objects" whose functions and purposes are shaped by the pursuits of humans in the contexts where they occur. "Artefacts *qua* means are never neutral. They make some things possible and exclude others. Artefacts embody values or 'have politics' (…). Technology is not exogenous to human agency, as the contrast of humans to machines may initially suggest. Technology does not constitute a force that simply has to be used, resisted, bypassed or altogether avoided".[31] Today, there is of course a burgeoning contemporary literature on e-democracy but it can be distinguished from previous strains of research because, most of the time, it uses, at some level of analysis, the idea that the technology we are dealing with should be understood and grasped in terms of "information", not mere tools.[32] Our starting point, thus, is that "the modern alliance between *sophia* and *techne* has reached a new level of synergy with the computer revolution".[33]

III. Mapping problems: what is new and what is not?

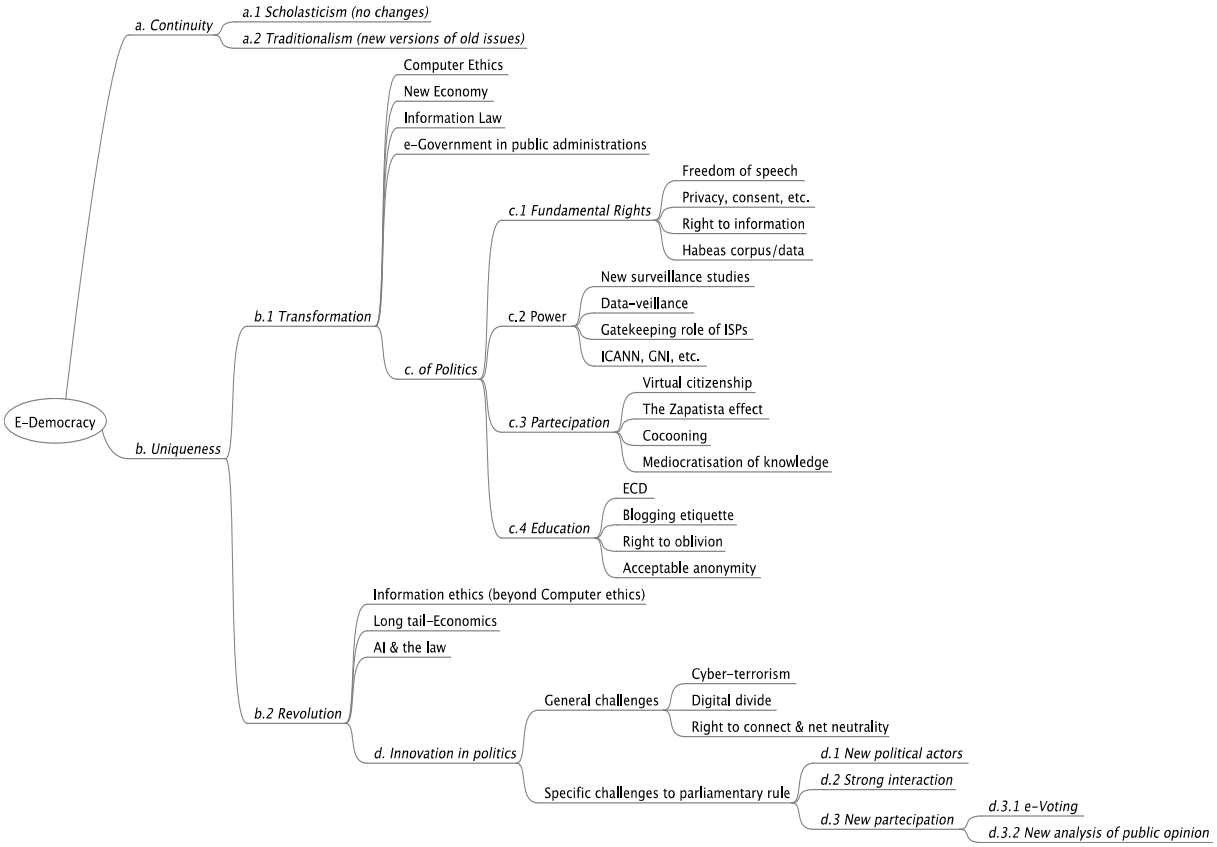
I suggest the following non-exhaustive map of problems that are implied by the term e-democracy in today's debate. I shall try to spell out the relations of political thinking with its "cousins", the other branches of practical thought. A cascade of issues, associated with e-democracy in its broadly construed meaning, will be stressed and assigned to respective levels of change. Some are partially convergent, yet most dissimilar. All push for reconsideration of the contemporary dialectic between means and ends.

[30] See Floridi (note 19) at 31.

[31] Jannis Kallinikos, Governing Through Technology. Information Artefacts and Social Practice, Palgrave Macmillan, Basingstoke 2010, 3.

[32] The difference between a tool or instrument and a machine consists in the difference of reliance on individually taken decisions: «A decision is required at every moment, the instrument being manipulated in different ways in accordance with the result so far attained. Such decisions may be vested in the instrument itself. If it is, the instrument then attains the status of a machine. If the user makes all the decisions the instrument is only a tool. The distinction between a tool and a machine is primarily that in the former a decision is involved at every moment and in the latter there is an independent functioning which permits the decision to be made by the natural run of the instrument» (Peter Weiss, An Introduction to a Study of Instruments, *Philosophy of Science* (1941), Vol. 8, 295).

[33] See Floridi (note 19) at 27.



The basic distinction among the different levels of questions is between (a) which features and characteristics appear to be in *continuity* with past experiences, conferring on the hyphen of e-democracy a conjunctive function and (b) what features and characteristics appear to be in *discontinuity* with past experiences, turning the same hyphen into a disjunctive sign. A second level of fundamental distinctions can be made within (a) and (b).

Under (a), we should distinguish between (a1) outlooks that do not account for the digital revolution and therefore are not equipped to operate with, or even notice, the current changes, and (a2) theories that uphold that we are witnessing new versions of old problems, yet refuse to consider these issues as offering unique features. I shall call the first outlook scholastic and the second traditionalist. Scholasticism here stands for what socio-linguists call "internal discourse", i.e. meta-theoretically acritical (or pedantic) attachment to a theoretical setting that ignores new data in the sense that it does not make use of a level of abstraction that turns the infosphere, and what is happening within it, into an observable of the system. Most political doctrines that are currently ignoring the informational turn have high probability of performing well in this category, with the consequent risk of ending up on the Hegelian dump of history. Perhaps a strict realist approach to political relationships that centres on the idea of *le pouvoir pour le pouvoir*, where power is sought for its own sake, and that hence does not take into account the declared values of those who engage in the digitally

shaped political practice could be ascribed to (a1) since such a stance fails to perceive the ubiquity and pervasiveness of digitally re-wired collective endeavours (e.g. Ushahidi): It is just blind to the new environment. The same goes for political theories that do not account for the huge impact on policy-making the Internet and the web has had over the last decades. But also among approaches that have been investigating the political scene after the advent of the Internet often rely on comfortable convictions of "politics as usual": cyberspace "will be moulded by the everyday struggle for wealth and power" [34] so that current political relationships and power distributions will ultimately be replicated online, opposing the view that the ICTs offer potential for radical redistribution of power. Similarly, Matthew Hindman, in *The Myth of Digital Democracy*, after tracking nearly three million Web pages, contends "that the beliefs that the Internet is democratizing politics are simply wrong"[35] and labels "Googlearchy" the current state of the Internet that would have done little to broaden political discourse but in fact empowers a small set of elites – some new, but most familiar. This is a perspective perfectly adaptable to Schumpeterian elitist theories of democracy.[36]

Are political theories, and theories of democracy in particular, that uphold the claim of the neutrality of technology to be ascribed to (a1) or (a2)? There is a vast portion of scholarly attention being directed to the "crisis of democracy" that had been growing steadily over the years: does this stream of research offer outlooks that should be placed under (a1) or (a2)? Political theory deals with underlying basic concepts such as obedience, legitimacy, order, justice that have transcended the passing of ages – from the classical age to the modern age – as well as the passing of forms of government, from monarchy, oligarchy/aristocracy to democracy. A fundamental question for political theory in this new setting would be to investigate the question of "diffusion of power": is there such a thing? In other words, is "power" more or less "powerful" when distributed? Are distributed power structures necessarily decentralized? Should we abandon the idea of a necessary link between force and power? If power is not exercised only through coercion, but also through the construction of meaning, does greater pluralism in semantic appliances imply a different configuration of the techno-social "relational capacity to influence asymmetrically the decisions of other social actor(s)", pursuant to one definition of power in the networked society?[37] Moreover, do such fundamental political categories, that seem well suited for being positioned under (a1) really

[34] Michael Margolis, David Resnick, Politics as Usual: The "Cyberspace Revolution", Sage Publications, Thousand Oaks (CA) 2000; Kai Hafez, The Myth of Media Globalization, in ASQ, Wntr, 2008 (trans. by Alex Skinner).
[35] Matthew Hindman, The Myth of Digital Democracy, Princeton Univ. Press, Princeton 2009, 3.
[36] Josef Schumpeter, Capitalism, Socialism and Democracy (1942), Routledge, London 2010.
[37] Manuel Castells, Communication Power, OUP, Oxford 2009, 10.

fit there, or should we add a new category or modify existing ones? For instance, how is the notion of "consent" to be understood in a setting where "informed consent" is increasingly complex to grasp and offers little resemblance to past forms? How many of you actually read the juridical contracts before you click "accept"? Another example of calling into question fundamental categories of political thinking concerns a major assumption of existing theories of political organisation, i.e. that a political community implies *borders* (including cosmopolitanism that does not, contrarily to what it might seem at a first glance, exclude internal federal settings): Does the trans-border effects of cyberspace call for a problematisation of such an assumption? Many contemporary theories of the so-called "global civil society", like many McLuhan-inspired "global village"-theories, seem to engage in such a direction, whether implicitly or explicitly. Does cyberspace call for a rethinking of what has been called the "democratic boundary problem"?[38] The Internet is a medium that does not obey a geographical fractioning of the kind we have been used to in political gerrymandering – IP addresses are logical not geographical places –, how does this affect how we determine the "sphere of law" over a determinate community? The underlying idea of "space" relevant for political purposes perhaps needs recasting.

Before being raised in relation to politics, the outlook offered by (a2) was raised in relation to other realms of practical knowledge such as ethics and law. Already in 1985, ethicists were engaging in what came to be known as the "uniqueness debate": on the one hand, James Moor suggested that we think of the ethical questions surrounding ICT technology as policy vacuums,[39] while Deborah Johnson defended the traditionalist account, based on the principle of analogy, according to which existing moral norms and principles can be applied to the new situations.[40] In the field of legal science, while David Post stressed the discontinuity-reading,[41] Jack Goldsmith embraced such a traditionalist account where the new "crimes" emerging with the Internet would have been subsumed into already existing categories.[42] Is it warranted to suspect that a similar traditionalist outlook informs many of today's e-democracy sceptics? "Traditionalist" here does not have any politically loaded meaning since it merely indicates the cognitive and epistemological ability of a theory already in use to account for upcoming facts. This implies that the key difference between traditionalists and scholastics lies in the fact that the first accept the challenge of the

[38] Frederick G. Whelan, Democratic Theory and the Boundary Problem. In: Liberal Democracy, eds. J. R. Pennock, J. W. Chapman, New York University Press, New York 1983.
[39] James H. Moor, What is Computer Ethics?, *Metaphilosophy* – special issue (1985), 263-275.
[40] Deborah Johnson, Computer Ethics, Prentice-Hall, Englewood Cliffs NJ 1985.
[41] David Post, Against "Against Cyberspace", BTLJ (2002) 17: 1365-1383.
[42] Jack Goldsmith, Against Cyberanarchy, U. Chi. L. Rev. (1998) 68: 1199-1250.

information age but believe to have the answers, while the second does not accept the challenge. Traditionalist accounts can be important both as descriptive and as normative accounts. Descriptively traditionalist outlooks often correctly grasp the ways in which policy decisions are made in practice as people are getting used to new technology (early stages descriptivism), and, normatively, such accounts appropriately recommends stocktaking on past experiences. Yet the inherent risk with such outlooks is that they may overstretch the principle of analogy, suggesting a mechanical process of extending knowledge and thus obscuring important decisions that are being taken in the design of new technologies that will be used in operating within the "politically loaded" world of experience.

Under (b), we should keep separate two positions that share, contrarily to positions under (a), the idea that computers have such an impact on the political relationships of human beings so as to warrant independent investigation of the "uniqueness" of political cyberspace and democracy in the digital age. Those who call for such independent investigation, nevertheless, develop different perspectives: the first (b1) focuses on the "transformation" brought on by digitalisation while the second (b2) concentrates on the "revolution" going on. Just as the information age of the "interconnected estate" has impacted on other branches of practical thought, such as ethics, economics and the law, the outlook under (b1) holds that we are witnessing new versions of old problems, and the novelty does not only consist in re-contextualization but in the fact that the issue raises unprecedented or unique features.

The difference between positions under (a2) and (b1) can thus be spelled out: whereas (a2) claims that we are witnessing new versions of old problems, yet refuses to treat these problems as offering unique features, (b1) claims that not only are we confronted with novel questions but we could not correctly understand and respond to these challenges if we do not take into account the specificities of information technology (such as its malleability, ubiquity, easily scalable networks, the "long tail", the emergence of collective intelligence, velocity of transformation or "Moore's law" etc.). This means, in other words, that if we want to understand a position as being related to (a2) or (b1) we should ask "What is it about information technology, as opposed to firearms, or washing machines or light bulbs, that creates political issues and uncertainty about democratic matters?" Are current problems affecting democracy in the digital age really different in the sense that they require development of a "new form of democracy"? Or are ICT-related political issues simply old political problems in a new guise?

In order to better illustrate the difference between the transformative potential (b1) of Internet politics and its revolutionary thrust (b2), a quick comparative look at the other

branches of practical philosophy is useful. Probably the first realm of practical knowledge that took the computer technology seriously was ethics: since the 80ies computer ethics has been addressing issues such as: Is it ethical for a website to place a cookie on the hard drive of those who visit the site? Is data mining morally acceptable? Are Internet domain names being distributed in a fair way? Should surgery be performed remotely with medical imaging technology? Should computer graphical recreations of incidents, such as automobile accidents, be allowed to be used in courtrooms? Is it right for an individual to reproduce and alter an artistic image electronically that was originally created by someone else?

Economists took up the challenge with the new economy turn: post-industrialism became evident for the larger public with the dot-bubble in the early 2000s. The transformative aspects of the Internet emerged in economics as its ability to reduce internal administration costs, speed up communication, reduce costs of transmitting data: all aspects that meant the reduction of the number of middle-hands between original providers of goods and services and the final consumer. The futuristically minded understood that the disintermediation would challenge traditional economic functions of wholesalers and retailers, implying fewer big malls, offices, publishers etc. This spotlight on renewed economic functions is a good example of the outlook focusing on "transformation": It does not yet imply anything revolutionary, but it means that "business as usual" has to take into account the new setting.

On the political side, this trend was picked up by the transition to e-government in public administrations (e.g. electronic service delivery, the development of standardized management tools for legal documentation and information retrieval, such as XML standards; ZTTs in surveillance and congestion management; smart cards in public transport such as the London Oystercard): "the advent of the digital era is now the most general, pervasive, and structurally distinctive influence on how governance arrangements are changing in advanced industrialized states". [43] E-government streamlines, standardizes, and modifies public administrations but does not pretend to create e-democracy *ex novo*.

The transformative potential of the Internet also hit lawyers, prompted by the appearance of new "computer crimes" and the avalanche of law-making from the mid-90ies onwards concerning the regulation of the new technology (e.g. 1998 *Digital Millennium Copyright Act* that set the irresponsibility regime for ISPs without which much of the web 2.0 could not have developed, with Del.icio.us, Essembly, FB, Flickr, Gather, MySpace, Partybuilder, YouTube, Ning, Metacafe, Revver, Blip.tv, CHBN, vSocial, Tagworld,

[43] Helen Margetts, Public Management Change and E-government. In: Routledge Handbook of Internet Politics, eds. Nick Anstead & Andrew Chadwick, London 2009, 120.

Collectivex, Bebo, Care2, Hi5, Xanga... All this can readily be understood in the framework of (b1): the transformative potential of the digital age was firmly grasped and new ways of tackling the updated versions of traditional ethical, economic and legal issues quickly developed.

IV. How has the transformation hit the political realm?

Today the transformative potential of information technology appears when we consider problems of how we should best update realms of political theory with lengthy histories, such as (c1) fundamental rights, (c2) institutionalized power, foremost that of the State; (c3) political participation, including parties, movements etc.; (c4) citizen education, including socialization practices of political relevance (e.g. consent-formation, political identification practices…). All have, at some level of abstraction, a connection to (e)-democracy. "One of the weaknesses of Internet studies is a failure to link research to existing literatures or place it within current political contexts".[44] This implies that both futuristic optimists and realist normalizers fail to highlight that, under the present circumstances, *some* political institutions might benefit while other might not, *some* communicational settings may act as a catalyst for integrating *some* ICTs into participation and some may not. Scales of grey matter nonetheless. Here I shall briefly highlight some of the questions that can be raised in relation to points mentioned.

4.1. Get the Balance Right

In relation to *fundamental rights* (c1) the digital age has changed profoundly the ways in which we balance relative fundamental rights against each other: Think about freedom of speech and privacy. It is becoming all the more evident that, once we enter the infosphere, the traditional *habeas corpus*, to be able to offer the guarantees, safeguards and liberties we expect from it, needs to be understood (in addition and beyond the traditional approach) in terms of *habeas data*.[45] In other words, in a world where YouTube serves 2 billion videos a day, Twitter registers 750 twits a second, and 2.5 billion photos are being posted on FB a month, the balancing of freedom of speech and privacy has changed substantially: in accordance with (a2), privacy has not ceased to be the "right to be let alone" in the meaning of the right to non-intromission (e.g. secrecy of correspondence and of one's home), but it has

[44] Stephen Ward, Rachel Gibson, European Political Organizations and the Internet. In: Routledge Handbook of Internet Politics, eds. Andrew Chadwick, Philip N. Howard, Routledge, London 2009, 37.
[45] Stefano Rodotà, The Retention of Electonic Commmunication Traffic Data, *Revista d'Internet, Dret I Política*, 3 (2006), 53-60.

also assumed a previously unknown meaning of a *right to control over the treatment of personal data*. Think for example of the recent German protests about *google streetview* violating people's privacy by filming homes, streets, cars etc. Perhaps the most emblematic case of the new forms of tensions in balancing fundamental rights such as privacy and freedom of speech is offered by sns such as FB: is the user overexposed? If so is it due to the quality and type of data left online or should we understand it to be the user's "intention"? How much intentionality can be legitimately read into "like"-ing? How does the notion of "informed consent" change in such a setting? Such issues have become urgent with the use of data mining techniques that enable sns to "treat" such quantities of data as to allow statistical retrieval of unreleased information: "non-sensible data" such as your zip code for instance may "tell" if you are more likely to purchase wine or beer. To what extent should these practices be allowed? What kind of supervision should data mining be subjected? Today Europe's independent authorities on privacy are charged with the supervision in *Workgroup ex art.29*. Should such controlling bodies be held accountable to voters? Do they differ from other kinds of independent agencies?

An over-inclusive conception of privacy, on the other hand, raises issues of yet another kind: could not privacy then be used as a pretext for non-proportionate limitations on information lawful to spread? Yet another aspect of the *habeas data* protection is how to balance the right to safeguard one's reputation and honour without impinging on other's freedom of speech. Many, including the UN in a recent report from July 2011, believe that defamation should be decriminalized in the new informational environment. This has an evident political consequence in democratic regimes since building trust in the public domain is strictly linked to ability of public authorities to maintain a good reputation in a free speech environment. Should these rights be balanced differently when a party belongs to the political arena? Another problem of balancing digitally informed fundamental rights is that of freedom of speech and "decency": many (liberal) states limit freedom of speech in the name of morality and common decency. However, common decency is a sensible and highly variable threshold in plural and multicultural societies: when should it trump freedom of speech? In addition, governments often put pressure on ISPs to adopt more restrictive policies, including filtering online content. Such a case was the removal of FB photos of breastfeeding mothers. Are such measures justified? The fight against child pornography has repeatedly turned out to be a "trojan horse" suitable for concealing various repressive measures that had nothing to do with fighting pornography: e.g. entire IP addresses have been obscured deleting lawful material as well. Can such a throwing out the baby with the bathwater be motivated? A

similar problem of balancing rights is offered by the case of confidential information: the principle of publicity would require there to be no "state secrets" but since there are, the tension between freedom of speech, mirrored in the right to information, clash with protection of confidentiality. How should the balance be struck? This raises the question of protecting whistleblowers, those who take risks in order to disclose confidential information to the benefit of the community (e.g. Wikileaks poses a similar problem: Benkler forthcoming). Chapter IV of the recent UN report on Free speech highlighted this transformative dimension of this core fundamental right, essential to liberal democratic society, by outlining some of the ways in which States are increasingly censoring information online, namely through: arbitrary blocking or filtering of content; criminalization of legitimate expression; imposition of intermediary liability; disconnecting users from Internet access, including on the basis of intellectual property rights law; cyber-attacks; and inadequate protection of the right to privacy and data protection; unclear responsibilities for ISPs.[46]

Let us stress why there is room for analysis belonging to (b1) here and not only re-editions of settings under (a2): For instance, to show why the analogy with traditional media is insufficient and/or misleading for regulating the current blogosphere emphasis should be laid on the fact that, even though bloggers often have journalistic statuses, gaining access to political events and press conferences, they are fairly different from traditional journalists as far as editing issues are concerned. Another, yet interconnected aspect is the status of e-participation movements: the US netroots movement *MoveOn* is a 527 group and thus legally defined as non-partisan: how should such advocacy groups be legally framed in the new environment? Conversely, the problem of non e-commerce protected ISPs such as YouTube that in Europe is not covered by the ISP immunity given to e-com is connected to free speech.

To give a practical example of why the analogy with traditional media is misleading, let us consider the recently discussed Italian proposal of "transposing" existing freedom of speech norms to new media (cf. *disegno di legge sulle intercettazioni* 2009). This example shows why it is urgent to distinguish classical features under (a) and unprecedented features under (b). The proposed bill suggested to apply to bloggers the same rules that are applied to newspapers and TV-editors: the Italian legal system confer upon traditional media an obligation to grant the person who considers herself to have had her reputation soiled a "right to reply" within 48 hours. Non-compliance would entail fines for individual bloggers up to 12500 euros. It does not make sense to apply such a norm to websites and blogs since the

[46] Ugo Pagallo, ISPs & Rowdy Web Sites Before the Law: Should We Change Today's Safe Harbour Clauses?, *Philosophy and Technology*, Special issue ed. By G. Finocchiaro, E. Pelino, A. Ricci and A. Spangaro (2011) May, 335-34.

Internet is a medium that does not follow the parcelling out by the hours that traditional media work with (indeed, new media have an a-synchronic and highly variable organisation such as *real time*, *on demand*…): it is not hard to understand that such an analogous extension of previously existing norms such as the traditionally conceived (one-to-many) "right to reply" would kill off the blogosphere since bloggers would need to renounce to any other activity or continue their activity as potential legal infringers – a risk few would take. Italy's lawmakers have also suggested (*decreto Romani* of 2009) a requirement of a ministerial authorization for all streaming videos: another proposal that is incompatible with freedom of speech in the digital world, too cumbersome for individual prosumers.

Since fundamental rights of this kind (that guarantee so-called first-wave liberties or negative liberties) are essential preconditions for democracy, we must understand e-democracy to be involved with questions arising in this field as well, and here political theory has to develop frameworks in pace with the technological developments because it is currently underequipped to provide answers on how to balance rights in this new environment. To what extent does liberal theories of rights accommodate for the Internet Bill of Rights-movement?

4.2. Transformations to the State and Institutions

In relation to (c2), the power of institutions, and in particular of the State, is changing. On one hand, some of the changes we are witnessing are transformative but hardly related to ICTs, on other hand, some other trends, related to ICTs are unprecedented.

As far as the first are concerned, there are a series of transformative trends that may perhaps be amplified by the Internet but that are not "new"; e.g. there is of course the long-standing tradition in political theory that over the 20th century focused on the transformations of the state and the erosion of the Westphalia paradigm. Most tendencies of state erosion might be amplified but cannot be said to be "unprecedented" as such. Perhaps it is true that "in the interconnected estate, a virtual space that is constrained by different national laws but not national boundaries, there can be no equivalent to the Treaty of Westphalia".[47] Yet political theory has been reflecting on this tendency of erosion of the public/private, in/out-divides for decades. And there is, indeed, food for thought on the topic: A good example of the kind of post-statual blurring of genres that cannot find easy accommodation in traditional frameworks is the GNI – *Global Network Initiative* – that brings together human rights groups, investors, academics and companies and has published specific guidelines on

[47] See Schmidt, Cohen (note 1) at 80.

promoting freedom of expression. Another interesting case of a private company having a (para)public function is the ICANN that distribute domain names among other things.[48] Many more cases could be cited. Add to this, phenomena such as the outsourcing of censure from governments to ISPs, partly as a consequence of the gatekeeping role exercised by some key players, such as Google for instance: This, in turn, opens up questions such as does holding intermediaries liable for the content disseminated by their users lead to self-protective and over-broad private censorship without the due process of the law? OpenNet lists the attempts of censuring the Net that have no basis in judiciary rulings (U.N. guidelines to defend free expression claim censorship of content online must be transparent and enforced only through the courts). These are pressing issues but could be framed within the trend that investigates how the lines of private and public are getting increasingly blurred: the digital environment might just strengthen an already existing trend. Many empirical scholars in political science have argued that we are assisting to enforcement of previous trends: early evidence of e-participation indicated "a deepening of activism among the already engaged, but only a marginal mobilization role in relation to new audiences. Overall, ICTs seem to be accelerating some of the trends of the pre-internet era such as individualization and disaggregation".[49] On such a reading, the Internet does not much more than accelerate trends that brought on "post-democracy",[50] e.g. fall in party and trade union membership, the lack of satisfaction with traditional parties and the rise of so-called protest business,[51] an increasing focus on single-issue campaigns, ephemeral mobilization practices. These problems of "mature democracies" have roots in the pre-digital age and "the arrival of the internet into the midst of these upheavals has added a further layer to debates about the role of political organizations".[52] The early days that stressed the risks of electronic populism[53] did not discover something new but rather added a dose of tech-determinism to the already on-going sufferings of representative democracy.[54]

Conversely, we are also assisting to trends that embody the truly transformative potential of the digital age in the realm of politics: think of data-veillance and new surveillance studies for instance. Dataveillance refers to the automated and systematic use of personal data systems in the investigation or monitoring of the actions or communications of

[48] See Post (note 41).
[49] See Ward & Gibson (note 44) at 25.
[50] Colin Crouch, Post Democracy, Polity Press, London 2004.
[51] Grant A. Jordan, William A. Maloney, The Protest Business? Mobilizing Campaign Groups, Manchester Univ. Press, Manchester 1998.
[52] See Ward & Gibson (note 44) at 28.
[53] Benjamin Barber, Which Technology and Which Democracy. In: Democracy and the New Media, eds. H. Jenkins & D. Thorburn, MIT Press, London 2004.
[54] See Anstead & Chadwick (note 11) at 58.

one or more persons and comprises a wide range of techniques (Front-End Verification, computer matching, data trail, biometrics: Clarke 2006). Now, if traditional surveillance was 'close observation, especially of a suspected person', the new forms of surveillance that information technology enables is applied, beyond persons, to places, networks and categories of persons (e.g. profiling): the *new social surveillance* can be defined as, "scrutiny through the use of technical means to extract or create personal or group data, whether from individuals or contexts".[55] If surveillance has been in constant expansion over the last centuries,[56] the microchip and the computer have substantially impacted on the centrality of information in the workings of contemporary society: just think of CCTVs, smart cards in work places, electronic location monitoring, DNA analysis, drug tests, brain scans for lie detection, thermal imaging etc. Traditionally surveillance involved close observation by a person not a machine; there was a clear distinction between agent and subject of surveillance; it was generally non-cooperative; visible, manifest and usually coercive; it was more fragmented; whereas today it is carried out by ICTs, the watcher/watched relation is blurred (e.g. self-surveillance and cooperative surveillance), it has low visibility in disguised and routinized monitoring of everyday activities (e.g., use of a credit card for purchases automatically conveys information about consumption, time and location); it is comprehensive (the ratio of what the person knows about herself relative to what the surveilling organization knows is lower than in the past). There can be little doubt that major changes have occurred. However, the normative implications of these are mixed and dependent on the technology in question and evaluative frameworks. Politically salient issues are raised by the absence of discrimination between suspects and non-suspects (surveillance technologies are often applied *categorically*, e.g., all employees are drug tested or all travellers searched).

Another transformative thrust investing institutions is the unclear role of organizations played in ICT-informed political arenas: To go beyond the fixation on traditional parties and public spheres as the only relevant organizational schemes for consent flow aggregation and directing, as well as the recent hype about the spontaneous orders emerging from crowed-sourcing and self-organized political action – a.k.a. organizing without organizations – political theory needs to develop frameworks that can grasp the different levels, goals and intensities of organizing collective action: the fundamental nexus between formal institutions and the solving of free-riding problems needs rethinking, because information is a critical

[55] Gary Marx, Surveillance and Society. In: Encyclopedia of Social Theory, 2005, at: http://web.mit.edu/gtmarx/www/surandsoc.html (accessed 5/7/2011); Gary Marx, Windows Into the Soul: Surveillance and Society in an Age of High Technology, University Chicago Press, Chicago 2004.
[56] Michel Foucault, Discipline and Punish: The birth of the prison, Pantheon, New York 1977.

problem for organizations and that would be reason enough to shed new light on how ICTs impact on the myriad of organizational structures in contemporary politics. Mainstream democracy studies have not focused much on the interaction between technologies and the organizational structures. Yet "conceptualizing information and communication as central features of politics that might be fundamental reasons for the existence – or transformation – of groups in the first place"[57]: How should we understand the difference between a civic association and an interest group for instance? Organizations do not comprehend merely bottom-up, grass-root or civil society organizations but also public top-down organizations: How is the relationship between e-government – such as it is being implemented e.g. in Europe through eEurope 2005 action plan or the i2010 initiative – and administrative reform more generally evolving? What impact does the e-governmental agenda have on the lower levels of administration in its search for the proximity to citizens? What kind of bearing, if any, does it have on "horizontal" political identification practices and groupings?

4.3. Transformations to participation and its prerequisites

In relation to (c3) – political participation and processes of formation of consent and dissent through parties and movements – we need to rethink basic aspects of mobilization, informational pluralism, dynamics of public opinion, structure of the public sphere etc. Empirical work on e-participation still disagrees on the benefic vs. malefic impacts of ICTs: on the one hand some see participation increasing and deliberation potentially improve decisions,[58] others warn that it might be dangerous.[59]

As social theory was discovering that being virtual is an extension of time-space distanciation, whereby relations between social actors are increasingly disembedded – i.e. one of the most conspicuous characteristics of late modernity that gives rise to a range of highly significant social reconfigurations – we still ignore how ICTs are impacting the political side of this virtuality. In the only entry dedicated to the digital age of Marc Bevir's recent *Encyclopedia of Political Theory*, namely "Virtual", Stephen Coleman stresses that "it is unwise to think of virtuality in a politically deterministic way. That is to say, being virtual neither empowers nor weakens citizens; it neither broadens nor constrains public spheres. (…) In some situations, it allows people to engage in more meaningful communications that

[57] Bruce Bimber, Cynthia Stohl, Andrew J. Flanagin, Technological Change and the Shifting Nature of Political Organizations. In: Routledge Handbook of Internet Politics, eds. Nick Anstead & Andrew Chadwick, London 2009, 78.
[58] See Habermas (note 9).
[59] Cass Sunstein, On Rumours. How Falsehoods Spread, Why We Believe Them, What Can Be Done, Allen Lane, London 2009.

strengthen opportunities for consequential collective action; in other situations virtual interaction might be a poor substitute for physical intercourse. It is equally unwise to think of the virtual as being wholly decoupled from the real or physical; in most cases, acting virtually— such as sending an e-mail, taking a photograph, or joining a global movement— leads to social activities in the real world. Although some virtual experiences (such as online gaming) are fairly self-contained, most are not."[60]

This ambiguity of uses imply that, among the transformative thrusts, we find other – perhaps unsuspected – challenges facing representative democracy today, primarily in relation to public opinion: are outsider, oppositional or fringe organizations likely to benefit (disproportionately?) from the rise of ICTs, potentially posing a challenge to mainstream politics? How should we understand this phenomenon dubbed the "Zapatista effect"?[61] This might not only be due to equalization, i.e. the fact that all bits are equal on the net making extremists positions no less available than mainstream opinions, but also to the deliberative effect on the web 2.0: «when people talk what happens? Do group members compromise? Do they move towards the middle (…)? The answer is now clear and it is not what intuition would suggest: groups go to extremes. More precisely, members of a deliberating group usually end up in a more extreme position (…). Group polarization is a typical phenomenon in deliberating groups».[62] An interesting case study here would perhaps be Finland: Can the hyper-connectivity of the country that first constitutionalized access to broad band be correlated to polarization in politics, with the recent nationalistic upswing in the last elections?

A part from polarization, cocooning is another issue, i.e. the fact that people entrench into closed circles of political information where citizens can easily filter out news of certain kinds, an inclination due foremost to preference for avoiding "cognitive dissonance": it is not *per se* a new problem but ICTs enhance the effect by picking and choosing sources of information more freely in a panorama of more fragmented media where "trust" is bound to become a central epistemic value[63] and perhaps also key to understanding political orientation. In a world where more than 50% of the world's population has access to some combination of ICTs (5 billion cell-phone users, around 2 billion internet users, some 6,7% of the world's population having private access to the web) another problem for public opinion is the long-term effects of unrestrained gossip on the democratic system that tend to make

[60] Stephen Coleman, Virtual. In: Encylopedia of Political Theory, ed. Marc Bevir, Sage, London 2010, 1404.
[61] See Hafez (note 34) at 103.
[62] Cass Sunstein, Going to Extremes: How Like Minds Unite and Divide, OUP, Oxford 2009, 3.
[63] Gloria Origgi, Is Trust an Epistemic Notion?, *Episteme* (2004) 1 (1): 61-72.

false rumours go viral.[64]

Another connected worry is the "mediocratisation of knowledge" [65], i.e. the phenomenon of mistrust in experts that is often associated with the faith in crowed-sourced wisdom.[66] The open source pioneer Eric Raymond, for instance, has raised concerns about Wikipedia being "disastrous" from such a standpoint: According to Raymond, open source is not applicable to an encyclopaedia, as highlighted by the introduction of Wiki's 5 robots protecting entries against the obscenities and mass deletion of wikitrolls, the semi-closure of certain entries such as God, Al Gore, Galileo and Chopin, notwithstanding the "success story" that *Nature* published in 2005 finding a 4:3 error ratio between Wikipedia and the British encyclopaedia.

Linked to potential changes in the structure and dynamics of public opinion we find the changes in the *public sphere* that ICTs induce and that social and political theory is currently tracking: the Internet is often presented as a potential public sphere. Building on John B. Thompson's theoretical account of mediatisation as a process whereby "the exchange of symbolic forms is no longer restricted primarily to the contexts of face-to-face interaction, but is extensively and increasingly mediated by the institutions and mechanisms of mass communication",[67] some scholars have argued that social membership is increasingly taking a virtual form, for example, in online social movements and communities, and enabled relationships between governments and citizens. This was the ground for the rise of the "Netizen" in the 90ies as a "virtual citizen". It is noteworthy that unlike "virtual representation" in traditional political theory, which sought to justify the absence of people from power by characterizing them as virtually spoken *for*, Internet-related virtuality tend to be employed as a way of enhancing participation, by characterizing citizens as virtually spoken *with*.

The changes in the public sphere call for better understanding: at the same time public opinion appears to be divided (polarized, segmented, fragmented etc.) and empowered. One transformative (and understudied) aspect of participation is the increased support from expat communities ("virtual overseas party branches"), a direct impact of global diasporas using ICTs. Another challenge at this level of analysis (c.3) is to design mobilization procedures adapted to inforgs. It is often stressed that online donors tend to be "middle-class, fairly well

[64] See Sunstein (note 59).
[65] Paul Duguid & John Seely, The Social Life of Information, Harvard Business School Press, Harvard 2002².
[66] James Surowiecki, The Wisdom of Crowds: Why the Many Are Smarter Than the Few and How Collective Wisdom Shapes Business, Economies, Societies and Nations, Doubleday, Anchor 2004.
[67] John B. Thompson, The Media and Modernity: A Social Theory of the Media, Polity Press, London 1990, 15.

educated and politically active":[68] How do you design mobilization procedures adapted to politically inactive inforgs? In the early 2000's it was often stressed that online campaigning would only attract the least participative age group: How is it when the digital natives grow older? "Across Europe to date [we face a] reinforcement rather than a mobilization story".[69] There is considerable scope to analyse how and why online recruitment fails or succeeds.

4.4. Transformations to citizen education: redesigning net etiquette?

In relation to (c4) – citizen education – we need to rethink the "skill reset" that ICTs are prompting. Citizen education has appeared for some time to be a promise that traditional democratic theory had not kept:[70] While democrats typically believe that the practice of democracy modifies the ability of citizens to choose, making them do better choices, reality has often been stubborn in showing the opposite. In relation to this level of analysis too, we are witnessing a form of transformation: the problem itself is not new but it is assuming new forms. Think of the *Citizen's Briefing Book, cahier de doléances* that the Obama administration created for promoting *e-democracy*, i.e. a virtual arena where netizens could describe their own political proposals and vote for one another's suggestions. As the initial fervour for e-campaigning in the wake of Obama's election[71] left place for greater scepticism, in September 2009, the *Citizen's Briefing Book* had over 44 000 proposals and 1,4 million votes. However, the most popular proposals were legalizing marijuana and onlinepoker and granting free wifi access.[72] Sceptics usually point to the fact that providing electronic tools for participation is not the same thing as empowering members to participate: this is an old problem; what is changing are the terms of the issue, say, for instance, who sets the e-agenda? Is the interface single-issue driving or broad value enhancing? How free or constrained are facilitators or technical translators, including administratively non-trained technicians with civil servant-like functions? What role do they play in "adjusting" the software? Are organizational headquarters more likely to dominate the e-agenda and strengthen their position or not? Are the hubs of such participative networks political professionals or laymen? Would that change the overall assessment of the quality of participation?

Other citizen education-related issues likely to gain from being framed into the transformative dimension of e-democracy are the following (they are not entirely novel, and

[68] See Anstead & Chadwick (note 11) at 18.
[69] See Ward & Gibson (note 44) at 29.
[70] See Bobbio (note 16).
[71] Eric Boelhert, Bloggers on the Bus. How Internet Changed Politics, Free Press, NY 2009; Matthew R. Kerbel, Netroots. Online Progressives and the Transformation of American Politics, Paradigm, NY 2009.
[72] Anand Giridharadas, Athens on the Net, New York Times, 12/9/2009.

stocktaking from previous experiences can be valuable to set up guidelines): Whereas there is a longstanding tradition concerning journalistic behaviour, there is no established net etiquette for people blogging on political matters. It is common in the US that bloggers advocate for a campaign in return for a consultant fee: should bloggers reveal financial connections to a campaign? Similar issues concern bloggers' potentially abusive language and its connection to the abovementioned suggestion to decriminalize defamation. Another politically salient issue here is the management of "collective memory" on the web. On the individual level, old posts create a problem of claiming, enjoying and enforcing a "right to oblivion" but on the collective level this implies a problem about having a "right to change one's mind": a politician caught off guard in one moment in time expressing contradicting views to current ideas is likely to be targeted: how are ICTs changing such situations?

Yet another problem that calls on digital educational measures adapted to the new situation concerns anonymity and encryption practices. The ICT revolution, it is often said, has a megaphone multiplier effect, which need not amplify just what we "like". Jaron Lanier in *You are not a Gadget* argued that anonymity provided by the Internet can promote a sadist culture.[73] On the one hand, we see phenomena of individual "sadism" such as the "human-flesh search" in China, denounced on the NYT Magazine 2010 by Tom Downey, i.e. a kind of crowed-sourced detective work where people find and hunt down enemies in corrupt officials or simply people who have made others angry. On the other hand, encryption make mafia's and terrorist networks thrive: "as relatively inexpensive encryption technology continues to proliferate on the commercial market, there is little doubt that autocrats and hackers will make use of it, too. Finding the balance between protecting dissidents and enabling criminals will be difficult at best".[74] Balancing accountability against anonymization will need civic engagement and make education more important on the democratic agenda and redesign our ways of viewing "acceptable" anonymity.

Last but not least, a politically relevant aspect of the digital age and its specific forms of interaction is how the repertoire of civil disobedience is changing. The non-violent movement has developed alternative strategies to violence even since it first appeared (e.g. boycotts, sit-ins etc.) but the Internet has made the flourishing of non-violent new forms of opposition gain momentum. These include electronic civil disobedience and hacktivism where online activists have targeted governments and corporations through the defacing of websites, publishing of private information, through swarming and denial of service attacks (DDoS) that tie up websites and networks. Besides criticism coming from targets, there is criticism also from the

[73] Jaron Lanier, You are not a Gadget, Random House, Toronto 2010.
[74] See Schmidt & Cohen (note 1) at 79.

very activists: is online activism a shallow form of participation that distracts from real-world activities? Does it promote isolated activists?

V. Where lies the revolutionary thrust?

Let us now go back to the cousins of political philosophy so as to better grasp what in the current state-of-the-art concerning e-democracy really signals novelty. As the transformative dimension pushes for a still on-going process of updating, a further step is being taken in many fields of practical relevance. I shall refer to this shift of perspective, or awakening to the uniqueness of the technology impacting our world, as the "revolutionary" thrust. The idea is that information technology leaves some things as they were, and changes others to such an extent that previously received wisdom is of little practical use in developing plausible answerers to the upcoming challenges, but ICTs also increasingly entail a list of unheard-of problems that we are not culturally and scientifically prepared to address and that therefore are, indeed, "revolutionary" in their novelty. So as to stress what distinguishes this category of phenomena from those listed under (b2), a quote is useful: Walter Maner wrote, back in 1996, that "for all of these issues, there was an essential involvement of computing technology. Except for this technology, these issues would not have arisen, or would not have arisen in their highly altered form. The failure to find satisfactory non-computer analogies testifies to the uniqueness of these issues. (…) Lack of an effective analogy forces us to discover new (…) values, formulate new (…) principles, develop new policies, and find new ways to think about the issues presented to us."[75]

So as to illustrate the revolutionary thrust in adjacent fields of study, we can point to the rise of information ethics that goes beyond computer ethics in its earlier formulation since the fundamental subject of ethics is no longer held to be the human being, but subject to ethics is also informational entities. Like other realms of normative ethics abandoned the anthropocentrism of traditional ethics (e.g. Peter Singer and animal rights, Arne Naess and the deep ecology movement), in informative ethics anthropocentrism is substituted with ontocentrism.[76] Richard Stallman's four freedoms essential to software development in the GNU Manifesto (freedom to run a program for any purpose, freedom to study the mechanics of the program and modify it, freedom to redistribute copies, and freedom to improve and change modified versions for public use) could be read within such a development of ethics.

[75] Walter Maner, Unique Ethical Problems in Information Technology. In: Science and Engineering Ethics, eds. Terry Bynum and Simon Rogerson (1996) 2, 152; and, in the same way, see Moor (note 39).
[76] See Floridi (note 19).

The rights are not seldom presented as those of the software, not of traditional agents. This leaves room for plenty of debates but it clearly changes our moral toolkit drastically.

In economics, the "revolutionary" aspect of ICTs appeared in relation to the *long tail*, i.e. the retailing strategy of selling a large number of rarely required items in relatively small quantities – usually in addition to selling fewer popular items in large quantities. To Anderson, examples of such long tails include *Amazon* and *Netflix*.[77] We could add *iTunes* etc. Because of the negligible stocking, inventory and distribution costs of digital copies, such business models realize significant profit out of selling small volumes of hard-to-find items to many customers instead of only selling large volumes of a reduced number of popular items. Given enough choice, customers change their selection and buying patterns so as to result in the demand across products having a power law distribution or Pareto distribution. One innovatory consequence is the radically different capitalization processes.[78] Moreover, economics discovered the "revolutionary" implications of ICTs with the emergence of de-centralized non-market based transitional framework that compete with traditional forms of exchange; e.g. new forms of competition include the P2P collaboration groups that produce open-source software or create wikis, but also the crowdsourcing model, in which a company outsources work to a large group of market players using a collaborative online platform, and more generally work performed by individuals in commons-like networks that enable a "system of production, distribution, and consumption of information goods characterized by decentralized individual action carried out through widely distributed, nonmarket means that do not depend on market strategies".[79] This economic dimension, it should not be forgotten, is strictly linked to the emergence of the web 2.0 that is today at the center of the discussions on e-democracy.[80]

Yet, the analysis of the specifically political dimension of the impact of this technology is still largely unexplored, which might seem all the more surprising since the Internet has a structure that *per se* promotes informative pluralism since it enjoys a "variable geometry" (to use a fashionable expression in EU studies): contrarily to one-to-many or point-to-point media as traditional broadcast and publishing, the Internet enables many-to-many communication (e.g. FB), one-to-one communication (e.g. e-agenda), many-to-one (e.g. mail). It also has an interactive capability unlike traditional "passivity-promoting" media. Add

[77] Chris Anderson, The Long Tail: Why the Future of Business Is Selling Less of More, Hyperion, NY 2004.
[78] Yochai Benkler, On the new open-source economics – Ted talk 2005.
[79] See Benkler (note 28).
[80] Tim O'Reilly, What is Web 2.0? Design Patterns and Business Models for the Next Generation of Software on line, *Communications & Strategies*, No. 1, First Quarter 2007: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1008839.

to this the lowering of entry costs into the discussion that stimulated the rise of UGC (User generated content). Finally, it is a decentralized or a-cephalous media, contrarily to traditional media: conceived an as anarchical space, there is no hierarchy among flows – every bit has the same "value" on the net. This is an aspect that is often referred to being intrinsically "democratic", even thought "egalitarian" is perhaps a better label.

These characteristics are raising some unprecedented problematic dimensions. Here I shall list, on the one hand, some unique general challenges and, on the other hand, some novelties specifically related to democratic ways of governing, foremost parliamentary rule.

5.1. General challenges

Among the unprecedented general challenges that the Internet is raising we find the threats of cyber-terrorism (e.g. Russia's attack on Estonia in 2007) that seems to draw the broad brushstrokes of a new setting for International relations,[81] as well as the digital divide separating the information haves and have-nots:[82] the total bandwidth of the Internet in Africa is equal to that of the Brazilian city of Sao Paulo, and the total bandwidth of the Internet in Latin America is equal to that of Seoul, Korea. It is not only a matter of income, but it is multidimensional problem, involving availability of technology and physical infrastructure, as well as digital literacy. This means the divide cuts new boundaries within and across communities and cannot be subsumed into, or presupposed to be overlapping with, already existing categories of cognitive marginalization and subaltern groupings (it might replicate some, but it also develops others).

Another unprecedented challenge concerns the issue of recognizing and protecting what Hillary Clinton calls "the freedom to connect". Finland was the first country in the world to constitutionalize access to broadband. How should such a right be understood against the backdrop of modern constitutionalism? The right to connect should also be viewed in relation to the battle over Net neutrality. Such a right is linked to the digital divide as an instance of fighting informational inequality that we know has negative feedbacks on empowerment. In the background, we find the broader cultural struggle against the commodification of information and its increased propertization with its negative impact on creativity and

[81] Andrew Colarik, Cyber Terrorism: Political and Economic Implications, IGI, London 2006; Lech Janczewski, Cyber warfare and cyber terrorism, IGI London 2008.

[82] The term was probably introduced officially in 1995 when the NTIA (National Telecommunications and Information Administration), an agency headed by the U.S. Department of Commerce and an advisory body of the U.S. Presidency in the field of telecommunications, published the first of four government reports: A Survey of the "Have Nots" in Rural and Urban America. See James E. Katz, Ronald E. Rice, Social Consequences of Internet use: Access, Involvement and Expression, MIT press, Cambridge (Mass.) 2002; Russell W. Neuman, The Future of Mass Audience, CUP, Cambridge 1991; Bruce Bimber, Information and American Democracy: Technology in the Evolution of Political Power, CUP, Cambridge 2003.

innovation.[83] How is such a right to access to be understood on the ground of conventional theories of rights? Is it part of a new cascade of collective claims that amount to a "new wave of rights" or can it be subsumed under previously recognized types of rights, such as the right of freedom of expression and the right to share information as they appear in the 1948 UN Declaration of Human Rights (art 19, art 27 §1)? Is the right to connect mirrored in an obligation to provide connectivity? Conferred to whom? Can it be coherently framed into traditional negative liberties? Part of the freedom to connect is clearly of negative quality – prohibiting the state and the market from hindering or creating illegitimate impediments to access –, yet it is also associated with major investment in infrastructural development that traditionally are linked to positive liberties. Is it therefore a right structurally more similar to the right to education than to free speech? Should it be compared to a right that grants freedom *from* intromission in communication or to the right *to* information? Just like other traditional rights of Man, strategies have to be developed to protect it against contrasting forces. How can such strategies best be adjusted to the type of right we are concerned with?

If we look at some of the challenges that Internet is facing today, we see that it is under siege by both the state and the market. While in relation to the state, it can be claimed that both direct intervention (such as arresting hacktivists and jailing bloggers) and indirect intervention (censure of contents, e.g. China blocking websites containing key terms such as "democracy" and "human rights" as denounced by Reporters without borders, or states shutting down the Internet, e.g. Iran 2009, Egypt 2010) are reminiscent of traditional forms; yet what is unprecedented is that mechanisms used to censor information on the Internet are increasingly sophisticated, with multi-layered controls that are often hidden from the public. In relation to the market, some threats to the Internet might seem reminiscent of "old" problems such as for instance oligopolistic concentrations of ISPs (e.g. dominant positions of some players like Google, Microsoft, Apple, Facebook), yet others are new: The type of problem that are raised by the last mile or Net neutrality. Some companies that are guaranteeing the access to the Internet (often telecom-companies) are thinking of realizing a Net of fast-tracks, short-cuts etc. so as to maximize profits. Should this be allowed? Under what circumstances? How would an alternatively designed architecture alter the access to the right to connect?

[83] Lawrence Lessig, The Future of Ideas: the fate of the commons in a connected world, Random House, New York 2001; Lawrence Lessig, Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity, Penguin, New York 2004.

5.2. Specific challenges to parliamentary rule

Among the more specific challenges to democratic stiles of government, foremost in relation to parliamentary rule, ICTs are currently creating new ways for (d1) the transfer of information between different actors in the political arena and this makes (d2) citizens, political parties and civil society organizations acquire possibilities of more intense interaction; a perspective that can lead to (d.3) new ways of participating in the democratic process, such as (d.3.1.) through e-voting forms or (d.3.2.) innovative ways of analyzing public opinion.

For the information transfer between different institutionally codified actors in the political arena a viable option, differences in national systems have to be overcome. This is the goal of the promotion of parliamentary standardization: the *Global Centre for ICT in Parliament* organizes a conference (*World e-Parliament Conference*) designed as a forum for the sharing of best practices and laying down future guidelines. This standardization effort continues with *e-Parliament Framework 2010 – 2020*. Much work on standardization is being done through systems such as MetaLex that focuses on sharing documents in Extensible Markup Language (XML format), creating common metadata, facilitate citations and cross-references between different documents of different parliamentary systems, or on the determination of abstract classes of models that can serve as to identify similar structures despite varying appellatives (an article is logically invariable even though it might be called something else in some legal systems). Such an example is the Akoma Ntoso project. The standardization enables sharing of information between parliaments in a innovative way and to an unprecedented extent that is susceptible of laying the basis for greater bi- and multilateral parliamentary cooperation – quite surely a prerequisite for high-quality law-making in a world of increasing cross-border consequences and formerly reserved for operations within the executive branch. Of course, as in all phenomena of convergence, a risk of exaggerated streamlining and loss of pluralism might be present. The rapid growth of ICTs has changed the environment within which parliaments operate. Rather than being mere witnesses to these changes, they can choose to strengthen the legislative processes and participatory political engagement.

In the current phase, E-parliamentarization is essentially characterized by the digitization and sharing of documents, the focus is still on the individual act. However, the move that is occurring is a shift of focus from the output of legislation (i.e. acts) to promoting visibility and accessibility of the entire legislative process. The use of information technology opens up new prospects for cooperation, participation and sharing information and knowledge

which makes it necessary to shift attention from the single final output (the law) to a more comprehensive approach to law-making, taking into consideration previously unavailable or marginalized information in the process such as amendments, reports, draft laws, the role of committees, legislative inquiries etc.). In other words, the new forms might stress previously hidden dissent.

This approach aims to improve the quality of legal drafting, making these documents clearer, less ambiguous etc. where the presupposition is that more eyes with contrasting interests and preferences examining a text will increase the probability of singling out and pinpointing potential loopholes and equivocality. The type of drafting is also changing: drafting can now be done in layers. A single piece of legislation thus appears as a normative chain of text versions: texts that modify existing documents, and those that are being modified by it, can be mapped and followed through time (versioning); the logical structure of norms is being captured through languages such as RuleML, and documents are being indexed based on conceptual analysis (ontologies) of its legal domains, and meta-information has been incorporated in documents, including constitutional court decisions or ECJ rulings etc. It is reasonable to assume that such changes will impact on the type, quality, and systematic character of interpretative practices. A challenge here is to assess the rule of law-promoting capacity such procedures may entail.

In the legislation process, citizens rarely have access to the content of legislation until it is in its final stages and can only know about the haggling and negotiating of representatives through the reporting of journalists – this is perhaps about to change. The E-parliament approach that is currently being implemented in many countries also intends to highlight discussions that were not previously available to citizen scrutiny. This does not merely imply increased availability of information but more radically it also shifts emphasis onto previously concealed dissent. In practice this means that accessible documents will not include only the final legislative output as published by official sources, but also other kinds of documentation that is relevant for the formation of the law, yet that has been traditionally kept at the margins of the process with the effect of occulting dissent: think of mark-ups in drafting processes, amendment tracking, parliamentary reports, *travaux préparatoires* etc. An example of how the digitalization of parliamentary workings is changing practical politics is the role of the motion to amend: often used in parliamentary proceedings to water down a motion into a form that is more likely to be accepted or to convert it into a form that is more likely to be rejected, it can now be used to block the legislative process: the European Parliament enabled its members to submit amendments to bills directly on the web: the amendments are

sometimes so many that a blockage of the entire legislative process occurs. Whether for the good or for the bad, it is beyond doubt that ICTs are modifying some parts of the internal workings of representative democracy.

Traditionally, citizens hardly ever look directly at the content of legislation, more often relying on the recycled analysis of pundits who very likely did not read the legislation either. This is another aspect that is liable to change. E-parliament tools also provide for the appearance of prosumers in the political information field: *TheyWorkForYou* for instance enable prosumers to mash parliamentary data from the official British *Hansard* to remixed it in such a way that lay audiences can profitably follow the course of an issue: it allows users to track a particular issue or MP, comment on parliamentary proceedings, register for updates on specific issues etc. An example of such an institutionally designed application is the citizen's mail making it possible to send email the European parliament. An example of civil society generated devise is *Issue Crawler* that searches the web to establish where issues are being discussed and how those discussions are linked, making it easier to map the communicative landscape and sense how a debate is developing. Another interesting case is the project founded by Lessig and Trippi in 2008 called Change Congress that aims to augment accountability in limiting "corruption" (i.e. distorted influence of money) in the US Congress.

The innovative aspect of such possibilities lies in the fact that "the theoretical debate between direct, inclusive democracy and indirect, constitutionally balanced representation (…) totally ignores the possibility of options in between (…). The public has generally been spoken *at*, rather than *with* (….). Digital ICTs could play a vital role in changing the terms of that relationship."[84]

Another revolutionary impact of ICTs on parliamentarism is the possibility that is now opening up to devise workable inter-parliamentary dialogue, a possibility that until yesterday remained highly impracticable. The cooperation between parliaments arises from the possibility of sharing knowledge and information. It is currently being promoted by the *Global Centre for ICT in Parliament*, a joint initiative of the United Nations, the Inter-Parliamentary Union and a group of national and regional parliaments (European Parliament, the Pan African Parliament, the Chamber of Deputies of the Italian Parliament, national Assembly of Hungary, the People's Assembly of Egypt, National Assembly of South Africa) that was launched in November 2005 during the world Summit on the Information Society (WSIS). A potential impact could be the possibility, acknowledged in the Lisbon Treaty, of half of Europe's national parliaments working together to block a proposal of the

[84] Stephen Coleman, Making Parliamentary Democracy Visible. In: Anstead & Chadwick (note 11) at 96.

Commission. Such possibilities might reinvigorate the tension between governments and parliaments around Europe. Similarly the Ipex seeks to expand the information base available to national parliaments with regard to specific EU documents.

Add to this the deliberative, participative and direct democratic practices that use ICTs, such as online discussions, online polls, e-petitions, e-consultations on issues and e-consultations on bills. ICTs seem to have an impact foremost on "direct democracy institutions" (e.g. citizen initiatives, referendum…), and especially on forms of candidate recruitment (e.g. primaries): "In the United States most of the internet campaigning innovations (…) have occurred during primaries."[85] In particular, we should stress that the most challenging forms of ICTs in politics are those that intend to apply crowdsourcing and wikis for legislative purposes, to attempt to circumvent strong interest groups or corporations. Recently, Brazil suggested a rather sophisticated "Wikislation" website, e-democracia, as a method of creating web content that could be applied to the legislative process. The idea is to create more direct participation by citizens and more transparency in the work done by legislators, by relying on the "wisdom of the crowd". Such forms of wikilation are very different from institutions such as the referendum that can hardly be considered "participation in policy making" since it leaves the citizenry with only a veto possibility through a Yes/No vote on a pre-established draft. It remains to see what results such ICT-enhanced procedures can yield in legislation. Yet what is sure is that they open an array of other issues, that go beyond the problems we have already highlighted: what is the role of the technical translators in the drafting process? Can such wikilations-architectures be structured though distributed participatory design or is top-down systematization necessary? Are such changes promoting legislation of higher quality? Should we conceive such co-legislation as alternative or composite to ordinary legislative measures? Can such mechanisms pose challenges also for the realms of decrees? Can such measures promote infra-party democratization? How do we design and enforce the access to participation by those belonging to a determinate constituency? How should such constituencies be determined?

VI. Conclusions

Technologies embed choices that are politically salient, yet mainstream political theory has taken the issue rather lightly. Compared to what has been going on over the past few decades in the other branches of practical thought, namely ethics, economics and the law, political theory lags behind in understanding the current technological revolution and its impact,

[85] See Anstead & Chadwick (note 11) at 65.

potentialities and risks. Yet the current emphasis on Internet politics that polarizes the apologists that hold the web to overcome the one-to-many architecture of opinion-building in traditional representative democracy, and the critics that warn cyber-optimism entails authoritarian technocracy has acted as a wake up call. This paper has taken a first step in outlining a comprehensive research agenda on the problem "what is it about ICTs, as opposed to previous technical devices, that impact on politics and determine uncertainty about democratic matters?". A non-exhaustive but hopefully indicative conceptual map of (clusters of micro-)problems and concrete examples relating to e-democracy, has been presented. The point is to highlight when and why the hyphen of e-democracy has a conjunctive as opposed to a disjunctive function. There is considerable scope to analyse how and why online politics fails or succeeds, and how and why it deserves the label "democratic".

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E-Democracy and Values in Information Systems Design

Abstract: In this paper I demonstrate the utility of a Values in Design (VID) *perspective for the assessment, the design and development of e-democracy tools. In the first part, I give some background information on Values in Design and Value-Sensitive Design and their relevance in the context of e-democracy. In part 2, I analyze three different e-democracy tools from a VID-perspective. The paper ends with some conclusions concerning the merits of VID for e-democracy as well as some considerations concerning the dual tasks of philosophers in assessing and promoting value-sensitive technology design.*
Keywords: E-Democracy, E-Government, E-Participation, E-Voting, Values, Information Systems, Design, Transparency, Privacy, Security, Trust, Bias

I. Introduction

The goal of this paper is to demonstrate the utility of a specific line of research for the analysis and design of e-democracy[1] tools: *Values in Design* (VID). *Values in Design* refers to a field of research which has its origins at the intersection of computer ethics, science and technology studies (STS) and critical computer science. Empirical research from STS has shown that societal values often are – explicitly or implicitly – being inscribed into technologies in the process of their design and development, and that technologies in turn may retroact on societal values. *Values in Design* (VID) as a broader term, respectively *Value-Sensitive Design* (VSD) as a concrete methodology, provide a practical turn of these insights by arguing that technologies must not only be assessed and analyzed with respect to the values embedded and reinforced through them. It should further be possible to *intentionally* inscribe desired values into technological artifacts in the process of design and development.

Taking a look at debates and developments in the field of e-democracy, it becomes obvious that democratic values, such as transparency, accountability, trust, or secrecy, and the way different tools support such values is a central topic. Based on this observation, I want to show in this paper that a *Values in Design* perspective provides an ideal *analytical* framework

[1] I use e-democracy as a generic term for electronic tools that aim to support different democratic processes. As such it is meant to encompass other more specific terms, such as e-participation, e-government, e-voting, etc.

to assess existing e-democracy tools as well as well as *normative* framework which can provide guidance for the development of new e-democracy tools.

The paper is structured as follows. In the first part, I give some background information on *Values in Design* and *Value-Sensitive Design* and its relevance in the context of e-democracy. In part 2, I analyze three different e-democracy tools from a VID-perspective. The paper ends with some conclusions concerning the merits of VID for the assessment and design and e-democracy tools as well as some considerations concerning the dual tasks of philosophers to engage not only the critical assessment of e-democracy tools, but also to engage in their design and development.

PART 1: Values in Design and E-Democracy – Theoretical Considerations

II. Why to Think About Values and Information System Design?

1. Values and Technologies

The article "Do artifacts have politics?" published by Langdon Winner in 1980 is one of the most influential texts in the field of Science and Technology Studies (STS). In this widely cited article, Winner argues that technologies are by no means neutral, but instead have political properties by embodying "[...] specific forms of power and authority".[2] Referring back to Lewis Mumford's differentiation between authoritarian and democratic technologies, Winner offers a diversity of examples to support his claim that artifacts have politics. While the political nature of the atom bomb may be straightforward, Winner's other examples appear much more innocent at first sight: the mechanical tomato harvester, cotton-spinning mills, automobile assembly teams, Baron Haussmann's re-structuring of Paris as well as Winner's most famous - or infamous – example: Robert Moses's parkway bridges in New York.

Winner's empirical starting point for his analyses on the politics of artifacts has been the observation that the parkway bridges in New York are "extraordinarily low".[3] The person in charge of building those bridges was Robert Moses, "[...] legendary political entrepreneur, who has shaped the physical form of New York in this century and beyond as no other

[2] Langdon Winner, Do Artifacts Have Politics?, *Daedalus* 109(1), 1980, 121.
[3] See Winner (note 2), 123.

person".[4] Departing from this seemingly innocent empirical observation about the height of the parkway bridges, Winner argues that Moses *intentionally* had those bridges built that low to "discourage the presence of buses on his parkways". By this trick he was able to "[...] limit access of racial minorities and low-income groups to Jones Beach, Moses's widely acclaimed public park".[5] Winner argues that the design of those parkway bridges reflects "[...] Moses's social-class bias and racial prejudice"[6] and concludes: "Many of his monumental structures of concrete and steel embody a systematic social inequality, a way of engineering relationships among people that, after a time, becomes just another part of the landscape".[7]

Almost 20 years later, Bernward Joerges refuted Winner's famous case study. Based on correspondences with US civil engineers, Joerges argues that due to various requirements "Moses could hardly have let buses on his parkways, even if he had wanted differently",[8] therefore refuting Winner's central claim about the parkway bridges as an example of social engineering. Yet, irrespective of these methodological flaws and the questionable conclusions, Winner's example is a success story and it's been recited in many accounts of STS. How is that possible? Despite his thorough critique of Winner's story as a rhetorical device, Joerges himself concludes that Winner's story serves a specific purpose rather well: "to resituate positions in the old debate about the control of social processes via buildings and other technical artifacts – or more generally, about material form and social content".[9]

What was so promising and inspiring about Winner's case is that he delivered a simple and strong case for the inscription of societal values into technology and the societal effects of such biased technologies. It is this insistence on the *political* character of artifacts and the possibility of *social engineering through technology* that hit the Zeitgeist of critical science and technology scholars. Winner initiated a discussion about the politics of artifacts by refuting the assumption that technologies are neutral or follow some inner-technological rationality. Instead he stressed the societal environment with all its values, prejudices and assumptions that get inscribed into these artifacts. In Moses' case – and that makes this specific example even more seductive – there seemed to have been this powerful man who intentionally inscribed his views into technology, who quite literally carved his racial prejudices and societal inequalities into stone, made them durable, solidified them in artifacts, and ensured their enduring societal impact.

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[4] Bernward Joerges, Do Politics Have Artefacts? *Social Studies of Science* 29(3), 1999, 412.
[5] See Winner (note 2), 124.
[6] See Winner (note 2), 123.
[7] See Winner (note 2), 124.
[8] See Joerges (note 4), 419, italics in original.
[9] See Joerges (note 4,) 411.

Nonetheless, it soon became obvious that focusing only on allegedly intentional social engineering may not suffice to understand the political nature of technologies. Rather, even seemingly innocuous design decisions may also have societal effects, i.e. even without assuming a racist, sexist or similarly motivated designer, design decisions by definition make "differences that matter".[10] Hence, to my mind a crucial role not only for STS-scholars, but also for philosophers consists in the critical assessment of technologies with respect to the ethical, social or political values they embody as well as their ethical, legal, social or political consequences. Yet, is there more that can be done than "only" to analyze existing technologies? Can those insights be made fruitful also for the design of technologies in the broadest sense of the word?

2. The Pragmatic Turn: Values in Design

One field of research that attempted to make this constructive or pragmatic turn is labeled *Values in Design*. Its goal is to play a more constructive role within the process of technology design and development instead of only revealing which biases and prejudices have already been inscribed into existing technologies. According to Flanagan, Howe et al. such a "[...] pragmatic turn [...] sets forth values as a design aspiration, exhorting designers and producers to include values, purposively, in the set of criteria by which the excellence of technologies is judged".[11]

Values in Design as conceived here is not a clear-cut program with a distinct set of methods, theories or scholars. Its roots lie in STS, just as much as in applied ethics and critical design practices within computer science and the term is rather meant to refer to a broader set of approaches that twists the insights obtained from STS and critical technology studies into developing guidelines or recommendations for technology design.

The publication of the seminal book "Human Values and the Design of Computer Technology" edited by Batya Friedman can surely be seen as a catalyst for the pragmatic or constructive turn in debates around *Values in Design* and may thus serve as a vantage point for this short portrayal.[12] For this anthology, Friedman brought together an interdisciplinary group of acclaimed scholars tackling the issues around values in computer and information

[10] Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham, Duke University Press, 2007, 36.
[11] Mary Flanagan, D. C. Howe, et al., Embodying Values in Technology: Theory and Practice, in: J. v. d. Hoven and J. Weckert. *Information Technology and Moral Philosophy*, Cambridge Cambridge University Press, 2008, 322.
[12] Batya Friedman, (ed.), *Human Values and the Design of Computer Technology*, Cambridge, Cambridge University Press, 1997.

system design. In her introduction, she asserts that although designers hardly think about values in their daily business, they "[...] necessarily impart social and moral values"[13]. But if that's the case, she further asks: "Yet how? What values? Whose values? For if human values – such as freedom of speech, rights to property, accountability, privacy, and autonomy- are controversial, then on what basis do some values override others in the design of, say, hardware, algorithms, and databases?".[14]

From the list of values above, the relation between *Values in Design* and debates around e-democracy should already become obvious. Freedom of speech, privacy and accountability are key words in debates about the potential advantages as well as the dangers of e-democracy.

3. An Example: Freedom from Bias

In this section I want to give an example of a value which plays and should play a central role in the evaluation and design of e-democracy tools and which also is particularly suited to understand some specificities of information systems design in general: freedom from bias.

Freedom from bias is an important requirement of almost any (information) system and indeed much of the work in STS has focused on detecting and remedying different types of bias. In their article on "Bias in Computer Systems" Friedman and Nissenbaum offer a taxonomy of biases that appears useful not only for analyses of existing e-democracy systems, but also as a guideline for the development of new tools[15].

First of all, what is bias in computer systems? The two authors use bias "[...] to refer to computer systems that systematically and unfairly discriminate against certain individuals or groups of individuals in favor of others"[16]. They identify three different categories of bias of relevance for computer systems: preexisting bias, technical bias and emergent bias.

Preexisting bias refers to "bias [which] has its roots in social institutions, practices, and attitudes".[17] This is the "Winner-type" of bias, the classic case of all those societal injustices or personal prejudices that get inscribed into technology, be it intentionally or unintentionally.

Technical bias however is something different. This type of bias is not rooted in societal values, but rather arises within the process of technology design, when designers make

[13] Batya Friedman, Introduction, in: B. Friedman, *Human Values and the Design of Computer Technology*, Cambridge, Cambridge University Press, 1997, 1.
[14] See Friedman (note 13), 1.
[15] Batya Friedman and H. Nissenbaum, Bias in Computer Systems, in: B. Friedman, Human *Values and the Design of Computer Technology*, Cambridge, Cambridge University Press, 1997 21-40.
[16] See Friedman and Nissenbaum (note 15), 23.
[17] See Friedman and Nissenbaum (note 15), 24.

technical decisions in certain ways and not in others, when they opt for one algorithm as opposed to another. The sources of technical bias that Friedman and Nissenbaum list are limitations of computer tools, decontextualized algorithms, methods of randomization, and the biases that occur when human concepts have to be formalized to match the formats needed for computing, i.e. in the process of translating abstract notions, such as transparency, privacy or trust into functional requirements for programming and finally into code[18].

Finally, the notion of *emergent bias* accounts for the fact that biases might occur later on through usage and appropriation of computer systems. Typically, such bias occurs when either the context in which the system is used changes, a process which Friedman and Nissenbaum describe as "new societal knowledge".[19] The second reason for emergent bias has its roots in a mismatch between the expertise or values of users and system designers[20].

Awareness about the potentiality of technical biases as well as emergent biases is of particular importance for the analysis and the design of e-democracy tools. If we presuppose that most e-democracy tools aim at positive values, such as transparency, empowerment, freedom of speech and information, etc. then the problem of pre-existent bias may still exist but probably not be the most pressing issue. On the other hand, technical decisions as well as changing circumstances and societal contexts which may have detrimental effects appear to be much more dangerous and much more difficult to grasp in the context of e-democracy.

Friedman and Nissenbaum propose different methods and design practices that should help avoiding biases in information systems, such as raising awareness of potential biases, rapid prototyping, the inclusion of different users groups into the design process, formative evaluation, field testing, etc. They conclude their article by stating that "[b]ecause biased computer systems are instruments of injustice – though admittedly, their degree of seriousness can vary considerably – we believe that freedom from bias should be counted among the select set of criteria accord; to which the quality of systems in use in society should be judged".[21]

[18] See Friedman and Nissenbaum (note 15).
[19] See Friedman and Nissenbaum (note 15), 26.
[20] This aspect is reminiscent of Madeleine Akrich's analyses of technologies that are used in contexts other than the ones where they have been developed. Cf. Madeleine Akrich, The De-scription of Technical Objects, in: W. E. Bijker and J. Law, *Shaping Technology/Building Society: Studies in Sociotechnical Change*, Cambridge, MIT Press, 1992, 205-224.
[21] See Friedman and Nissenbaum (note 15), 39.

4. Developing Methodologies for Critical Technology Design: Friedman 's Value Sensitive Design

Later on both Nissenbaum and Friedman together with colleagues developed concrete design methodologies to account for these insights concerning the relationship between values and information technology design and development. In the following, I exemplarily outline Friedman's methodology, which she labeled *Value-Sensitive Design,* in some detail.

According to Friedman and her colleagues *Value Sensitive Design* is a "[...] theoretically grounded approach to the design of technology that accounts for human values in a principled and comprehensive manner throughout the design process. It employs an integrative and iterative tripartite methodology, consisting of conceptual, empirical, and technical investigations".[22]

The notion of *value* is defined rather pragmatically and broad as that "what a person or group of people consider important in life"[23] – a definition that leaves room for a variety of values of different degrees of abstractness. In their decidedly non-comprehensive list of values that may play a role in information system design, they include the following examples: human welfare, ownership and property, privacy, freedom from bias, universal usability, trust, autonomy, informed consent, and accountability[24] – many terms which also are frequently encountered in debates around e-democracy.

Their methodology consists in an iterative integration of three phases: conceptual, empirical and technical investigations. *Conceptual investigations* encompass not only the identification of relevant values, but also the identification of different direct and indirect stakeholders. By including indirect stakeholders into the arena of analyses, they aim to amend for the frequent neglect of non-users, i.e. the neglect of groups which may not be considered relevant but which are nonetheless affected by technologies[25]. Relevant questions in this phase concern the different stakeholders and the ways in which they are affected; the relative importance of different values as well as the trade-offs between conflicting values, etc. Especially, but not only in this conceptual stage philosophers' expertise is of high relevance, in particular to characterize the specificities of different values. It is for this reason that in a

[22] Batya Friedman, P. H. Kahn, et al., Value Sensitive Design and Information Systems, in: P. Zhang and D. Galletta, *Human-Computer Interaction in Management Information Systems: Foundations*, New York, M.E. Sharpe, 2006, 348.
[23] See Friedman, Kahn et al. (note 22), 349.
[24] See Friedman, Kahn et al. (note 22).
[25] See Nelly Oudshoorn and Trevor Pinch, How Users Matter: *The Co-Construction of Users and Technology*, Cambridge, MIT Press, 2005, 67-80. In particular: Sally Wyatt, Non-Users Also Matter: The Construction of Users and Non-Users of the Internet, in: N. Oudshoorn and T. Pinch, *How Users Matter: The Co-Construction of Users and Technology*, Cambridge, MIT Press, 2005, 67-80.

similar *Values in Design* methodology proposed by Mary Flanagan, Daniel C. Howe and Helen Nissenbaum, the authors label this stage *philosophical mode*[26]. Flanagan et al. stress that in addition to some practical challenges, such as a scarcity of concrete *Value-Sensitive Design* guidelines for designers, there are also enormous epistemological challenges inherent in addressing values in information systems design. Accordingly, the philosophical mode consists not only in reflecting upon the nature, the extension and intension of values, etc., it also has to offer some normative orientation in "[...] providing rationale or justification for commitments to particular values in a given device".[27]

The *empirical investigations* in *Value-Sensitive Design* make use of a diversity of quantitative and qualitative research methods from the social sciences to analyze how people actually conceive and prioritize different values, which role they play in the actual actions, etc. During this phase VSD's *performative* understanding of information systems becomes obvious: the iterative, empirical methodology is meant to enable not only design and development, but also usage and appropriation of technological artifacts. That is, only through such an iterative process it can be analyzed whether the values intended in the design process were fulfilled, amended, subverted, etc.

The *technical investigations* as described by Friedman and her colleagues comprise of two different tasks. One task consists in assessing the role values play in existing technologies. This is the *analytic task* of *Values-Sensitive Design*. The second aspect is more interesting and innovative, since it concerns the "[...] proactive design of systems to support values identified in the conceptual investigation".[28]

Let me summarize the most important aspects of *Value-Sensitive Design* and how these are relevant in the context of e-democracy. First of all, *Value-Sensitive Design* aims at being proactive in bringing forward the design of new value-sensitive artifacts instead of only analyzing existing technologies. With respect to values, they include a wide variety of moral values, usually not taken into account in technology design. More precisely, they differentiate between moral values and functional values, such as usability and open up the possibility to weigh some values against others. Such value conflicts cannot only occur between functional and moral values, but also between different moral values, such as transparency versus security, accountability versus privacy, etc. Another useful insight of VSD concerns their

[26] Mary Flanagan, D. C. Howe, et al., Embodying Values in Technology: Theory and Practice, in: J. v. d. Hoven and J. Weckert. *Information Technology and Moral Philosophy*, Cambridge, Cambridge University Press, 2008, 322-353.
[27] Helen Nissenbaum, Values in Technical Design, in: C. Mitcham, *Encyclopedia of Science, Technology and Ethics*, New York, Macmillan, 2005, lxvii.
[28] See Friedman, Kahn et al. (note 22), 352.

view on universal or global values. According to them, the question of whether a value is global or local depends in the level of abstractness, i.e. a certain value, such as freedom, may be considered valuable globally. But what is meant by freedom may differ profoundly in different contexts when it gets to the details. This insight is particularly important for the design of e-democracy tools: even if there is a high-level consensus on certain values, such as privacy, the implications of this value for technical decisions and how privacy should be weighed against others values are by no means clear as will become obvious in the case studies in part 2.

As an interactional theory, *Value Sensitive Design* emphasizes that "[...] values are viewed neither as inscribed into technology (an endogenous theory), nor as simply transmitted by social forces (an exogenous theory). Rather, the interactional position holds that while the features or properties that people design into technologies more readily support certain values and hinder others, the technology's actual use depends on the goals of the people interacting with it" .[29]

Finally, another aspect, which is especially relevant for e-democracy applications concerns their attempt to broaden the scope of analysis by allowing not only for direct, but also for indirect stakeholder and *affected others*, providing a remedy for an overly exclusive focus on those stakeholders involved in the design and development of the artifacts. It is especially here, where power issues come into play, because as has been shown by various STS researchers, different stakeholder groups usually have different amounts of power and topics such as digital divide or equality of access are crucial and yet unresolved topics in debates around e-democracy as becomes obvious also the case studies in part 2.

III. Values in Design & e-democracy

Let's expand a bit on the links between and the high utility of a *Values in Design*-perspective, respectively methodologies such as the *Value-Sensitive Design* for e-democracy. Taking a look at recent debates in the field of e-democracy it becomes obvious that the term e-democracy is used for quite different topics, goals and strategies. Different concepts about democracy, such as liberal, communitarian, deliberative, epistemic or contestatory concepts of democracy,[30] do not only lead to different goals for e-democracy, they also leave their

[29] See Friedman, Kahn et al. (note 22), 361.
[30] Jeroen van den Hoven, E-democracy, E-Contestation and the Monitorial Citizen, *Ethics and Information Technology* 7, 2005, 51-59.

imprints on the design of e-democracy tools. Hence, as van den Hoven notes, "[f]or one person Democracy is all about E-Voting, for another it is all about on-line political debate".[31]

Despite these controversies, *values – democratic values* in particular – are a central topic for e-democracy, as are possible conflicts between different values. Indeed, a paper by Brewer, Neubauer and Geiselhart entitled "Designing and Implementing E-Government Systems: Critical Implications for Public Administration and Democracy" reads as if written from a *Values in Design*-perspective although it clearly is situated in a very different theoretical discourse as the references indicate.[32] In the following I use several longer quotations in order to demonstrate the prevalence of the question of values in the context of e-democracy and to show how a more thorough usage of *Values in Design methodologies* may be utile for very different types of e-democracy initiatives.

Already in the abstract, the authors argue that "[d]emocratic values can serve as design elements and anchors for these [i.e. e-government] systems" and that instead of merely outsourcing the design of such tools public administration should be actively involved into the design of e-government systems in order to "instill democratic values and ensure that democratic processes and outcomes are realized"[33]. Reminiscent of the insights from *Values in Design* the authors further state that

> [d]esign decisions are not merely technical or even merely administrative. They are political acts that have important implications for the conduct of public administration and democracy. These channels of communication can significantly alter democratic processes and outcomes. Although it may not be possible to force desired outcomes, public officials may be able to facilitate their emergence by using democratic values as design elements. Thus, in this age of increased contracting and outsourcing, public administrators must remain actively involved in designing and implementing e-democracy information systems. However, participation alone is not enough to ensure democratic processes and outcomes. The desired result requires an understanding of how information system design relates to democratic theory.[34]

To my mind, at least four crucial insights from VID are expressed in this quote:

1. that technologies have politics: "They are political acts that have important implications for the conduct of public administration and democracy"

2. that technologies retroact on society: "These channels of communication can significantly alter democratic processes and outcomes"

[31] See van den Hoven (note 30), 51.
[32] Gene A. Brewer, B. J. Neubauer, et al., Designing and Implementing E-Government Systems: Critical Implications for Public Administration and Democracy, *Administration & Society* 38(4), 2006, 472-499.
[33] See Brewer, Neubauer et al. (note 32), 472.
[34] See Brewer, Neubauer et al. (note 32), 472.

3. that once technologies are released, they start a life of their own and may be changed, modified and appropriated through (mis?)usage, i.e. the inscription of democratic values cannot guarantee democratic results: "Although it may not be possible to force desired outcomes, public officials may be able to facilitate their emergence by using democratic values as design elements"

4. that despite these caveats, administrators and other knowledgeable stakeholders should get involved in technology design: "public administrators must remain actively involved in designing and implementing e-government information systems. However, participation alone is not enough to ensure democratic processes and outcomes. The desired result requires an understanding of how information system design relates to democratic theory".[35]

Finally, even the method, which the authors suggest to guide the participation of administrative personnel in the design of e-government tools resonates well with value-sensitive design. They state: "The design of modern information systems to promote and facilitate democratic processes requires thought, deliberation, and experimentation. The creation of any complex system involves needs analysis, modeling, and technical design. Implementation is likely to be an iterative, incremental process".[36]

It seems as if due to this similarity of topics, concepts and goals, a more thorough and explicit application of *Values in Design* ideas and methods can be of great benefit for analysis and design of e-democracy systems. Especially, since not only the debates about the goals, but also those about the limits of e-democracy are discussed with reference to values. In a critical review of e-government strategies of the European Union Gallemore lists privacy, direct participation and indeed transparency as *limits* of e-democracy.[37] In particular, he asserts that "there are structural limits to eGoverment's potential to promote transparency", because not only will crucial decision-making processes on committee-levels remain opaque, too much transparency may also simply lead to information overload.[38] Moreover, he warns there is "no guarantee that individual citizens will be able to increase their voice through direct consultation", because of a lack of impact of citizen views on legislation, e.g. in the

[35] All quotes are from Brewer, Neubauer et al. (note 32), 473.
[36] See Brewer, Neubauer et al. (note 32), 493.
[37] Caleb Gallemore, Of Lords and (Cyber)Serfs: eGovernment and Poststructuralism in a Neomedieval Europe, *Millenium - Journal of International Studies* 34(1), 2005, 27-55.
[38] See Gallemore (note 37), 37.

case of e-consultation,[39] and finally he asserts that privacy issues yet to be adequately addressed in the context of e-government.[40]

Transparency it seems is a particularly interesting value with respect to e-democracy. Not only do many tools aim at increasing the transparency of administration and politics through different means. Transparency is a value which runs counter different other democratic values, such as secrecy (e.g. in e-voting), privacy (e.g. concerning personal data) or security (e.g. concerning security-relevant data such as the location water supply channels or power plants). Moreover, an empirical study addressing US citizen's attitudes towards transparency in local government also revealed not only that the term transparency refers to a wide variety of different issues – and problems – when applied to governmental information.[41] It also becomes obvious that opinions about which data should be made transparent are bound to different cultural and social factors. In particular, the authors of the study distinguish between *fiscal transparency* and *safety transparency*. Fiscal transparency refers to availability and accessibility of data such as records of government contracts, expense accounts, city budgets, or real estate records, etc. Security transparency refers to information about health inspections at local restaurants, police reports of crimes committed in local communities, the names of people being arrested including the crimes for which they are being charged, the names of sex offenders, etc. In their study, the authors could show that there are systematic differences between citizens requesting either security-relevant or fiscal data. For instance, older individuals with higher income, greater political engagement and those who feel closer to their community had a stronger interest in fiscal transparency. On the other hand, there were gender and regional difference with respect to security related data: women as well as people from the South of US appeared to be more interested in security related data then men and people from the Western parts of the US. Moreover, while both self-indentified conservatives and liberals were interested in transparency, conservatives were more concerned about safety-related information, whereas liberals were more "concerned with accessing government information on principle and for good governance concerns".[42] Moreover, the fact that publishing information about crime offenders, their names and the crimes they are charged with, was widely accepted in this study also indicates that there is a strong cultural, i.e. national, impact on the perception of which data should be made available and where privacy

[39] Confer for instance the EC-website for e-consultation [last date of access: 15.02.2012]: http://ec.europa.eu/justice/news/consulting_public/news_consulting_public_en.htm
[40] See Gallemore (note 37), 37.
[41] Suzanne J. Piotrowski and G. G. van Ryzin, Citizen Attitudes toward transparency in local government, The *American Review of Public Administration* 37(3), 2007, 306-323.
[42] See Piotrowski and Ryzin (note 41), 320.

sets limits to transparency, because such a practices appears to be much more controversial in many European countries.

PART 2: Values in Design and E-Democracy – Three Examples

In order to demonstrate the fruitfulness of this approach and its breadth of applicability I take a closer look at three very different e-democracy initiatives and tools from a VID perspective.

IV. CitySourced – or who reports upon whom?

The first e-democracy tool to be introduced is CitySourced[43]. On their website, the tool is described as follows:

> CitySourced is a real time mobile civic engagement platform. CitySourced provides a simple and intuitive platform empowering residents to identify civic issues (public safety, quality of life, environmental issues, etc.) and report them to city hall for quick resolution; an opportunity for government to use technology to save time and money plus improve accountability to those they govern; and a positive, collaborative platform for real action. A picture tells a thousand words and CitySourced makes it a snap.[44]

Citysourced therefore is meant to a) encourage people to report incidents which are considered problematic to the city hall and b) to do this through a certain platform that enables automated tracking, monitoring, qualitative and quantitative assessment of those incidents. Moreover, even in this short description it becomes obvious, that CitySourced aims at supporting certain values: besides some usability-related values ("simple and intuitive platform"), these are: civic engagement, empowerment, public safety, quality of life, accountability, collaboration as well as efficiency ("cost and time savings"). The same values are reiterated throughout the website. Let's take a closer look at the website.

The main menu consists of the following headers: About, Download, Neighborhoods, Contact, and Blog. Reading the "client testimonials" in the "About-section" seems to confirm the impression that efficiency is of particular importance in addition to communication and engagement, public safety and quality of life for residents.[45] In the "Download" section, the software can be found to install CitySourced on Windows 7 phones, I-Phones and I-Pod Toch,

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[43] I would like to thank the working group on Government2.0 at the 2010 Values in Design workshop at NYU for bringing CitySourced to my attention. http://sites.google.com/site/vid2k10workshop/home [last date of access: 13.02.2012]

[44] http://www.citysourced.com/about [last date of access: 13.02.2012]

[45] http://www.citysourced.com/about [last date of access: 13.02.2012]

Android Phones as well as Blackberry Touch and Non-Touch. Under "Neighborhoods" on can search for reported incidents via a map or through entering postal codes into a search box. Narrowing down the search to cities or regions then leads to a listing of reported incidents including a headline indicating the type of incident (e.g. "Graffiti" or "Abandoned Vehicle") and a picture. Clicking on those leads to the detailed description of the incident including its GPS-location. An example is given below.

Figure 1: http://www.citysourced.com/report/32659/other-not-listed-please-describe (date of access: 15.2.2012)

As can be seen from this screenshot, the report of the incident is located on the map. Moreover, the status of the incident is marked: e.g. whether the incident has only been submitted ("Status: Submitted") so far or whether action has been already taken from the side of the city council. In this case, the incident has already been referred to the responsible department ("Status: Referred to Dept").

The "Contact" section offers email and telephone contact data, but also targeted information for city officials (about how to use CitySourced in their city) as well as "relevant

local data" for media.[46] Finally, the Blog announces new apps, the uptake of CitySourced in different communities as well as various examples of media coverage.

Instead of going through all sites in more detail, I want to draw attention to a short video clip "Watch us on Kurt the Cyberguy", which is prominently placed on the homepage and introduces the main features of CitySourced.[47] In the following I describe the video in some detail and provide numerous quotes in order to shed some light on the explicit and implicit values as well as some potential biases of CitySourced.

The 2-minute video starts in a TV studio with two moderators introducing a report by "Kurt the Cyberguy", who is going to "talk about this new app that can help you be the hero of your neighborhood".[48] The invisible speaker of the video continues that "urban blight is an epidemic that hits you at home in every city of America". A woman interviewed in the street is cited to say "[i]n my neighborhood alone once a month we have to have the streets team cleaned – and we have to pay for it." The speaker continues that "[u]ntil now, there was no safe and easy way for people like you and me to do our part". We are then asked to "check out this brand new app CitySourced. It's like a digital police academy right in your pocket." The video starts playing the melody theme of the American comedy series "Police Academy", along with short clip from the movie and a scene of a street fight. Showing a blond women in a white dress, raising her eyebrows in disgust at the sight of a graffiti, the speaker continues that "if you see something that does not belong in your neighborhood, like graffiti, potholes, broken streetlights and any kind of vandalism, either water flooding into the street – just take a photo with your smartphone and then CitySourced automatically reaches out for help."

While the video certainly offers a lot of interesting material, I do not want to overstretch my analysis by asking what it means that urban blight is considered to be an epidemic, etc. Nonetheless, I do think that the way the problems to be reported to CitySourced are *framed*, is important to understand how implicit and explicit values take effect in the design, development and usage of tools such as CitySourced. First of all, it becomes obvious, that saving taxpayers' money is a major motive behind CitySourced or at least a major aspect for the marketing of CitySourced. This impression from the video is confirmed by the repeated emphasis on time and cost savings in the "About" –Section, especially in the "Client Testimonials" on the website.

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[46] http://www.citysourced.com/contact [last date of access: 13.02.2012].

[47] The video is embedded in the main page. http://www.citysourced.com/default.aspx, [last date of access: 14.02.2012].

[48] Kurt Knutsson, alias Kurt the Cyberguy, has reported on technological developments for various tv stations and newspapers. The video clip referred to here has been broadcasted by KTLA, a Californian TV station. All the quotes in the following section are transcribed from this video.

A second aspect becomes more obvious when comparing the video with actual reports. Taking a look at the reported incidents at the time of writing this article reveals that most incidents reported refer to graffiti, illegal dumping or street damages. Yet, in addition to potholes and broken streetlights, "homeless encampments and nuisances" also belong to those incidents that can be and are reported upon.[49] Hence, it seems that it is not just graffiti, but also homeless people who are classified as "not belonging in our neighborhood". Indeed while doing research on CitySourced for a seminar of mine in January 2011, I came across a report in which someone uploaded a picture of someone lying on the street. The picture was taken from the distance, tagged "homeless nuisance" and included the statement "not sure it's alive". The incident is not retrievable any longer and it may have been a singular event. Clearly, this example can therefore serve as anecdotal evidence at best, given the fact that I cannot provide further evidence than my own memory - and possibly the memory of my students. Nonetheless, it is easy to see that the sheer possibility of uploading uncategorized issues plus free tagging enables the reporting not only of potholes that are considered a nuisance, but also the reporting of places where homeless people camp. And whenever someone reports *homeless encampments or nuisances* to CitySourced, this report can be found on the website with pictures and the exact location.

Beyond the dehumanizing report above, two more generic problems should become obvious. The first problem concerns questions of agency and power: who can tag and who can be tagged? To being with, a smartphone is the technical prerequisite of being a reporter, while being reported upon is free of requirements. Despite the prevalence of mobile phones, it should be kept in mind that even today not every one possesses a smart phone and hence non-users are excluded and may be systematically discriminated against. Clearly, the digital divide it nothing specific for tools such as CitySourced. Nonetheless, this digital divide has to be taken into account when thinking about the question who can report and who can at best be reported upon.

The second issues concerns issues of privacy and safety, and in this case the privacy and the safety of the homeless people. Clearly, there is not only no consent from those who are reported upon. Making their location available online, also makes those who are living on the street potentially even more vulnerable to attacks. Now, clearly this comment is not meant to imply by any means that attacks on homeless people are the norm or are being encouraged

[49] On 2/16/2011, the City of Redlands for instance announced the use of CitySourced. Amongst the listed issues to be reported via CitySourced are "homeless encampments or nuisances." (cf. http://www.ci.redlands.ca.us/rss/article.php?client=redlands&id=20110216131044, [last date of access: 13.02.2012].

through tools such as CitySourced. Rather, I want to point to the fact that a) being able to report homeless encampments and b) providing their exact localization on a website that makes this information publicly available creates privacy and safety problems which need to be addressed.

Related to this problem is the question as to whether tools such as CitySourced may have the unintended side effect of fostering a detached form of civic engagement, in which personal action (e.g. checking whether a person lying needs help) is replaced by pseudo-engagement (uploading a picture from the distance with the remark "not sure it's alive"). Assuming that this was an extreme and untypical example of the usage of CitySourced, I nonetheless think that it serves as a good reminder that the best-intended tools can have serious side-effects for certain (non-)users. To conclude: while I see a lot of benefits in tools such as CitySourced, I think they should be handled with more care. VID can remind us not only that different values need to be balanced, but also that there may be unthought-of dangers for affected others that even if they cannot be completely foreseen need to be taken into account when designing, developing and evaluating tools such as CitySourced.

V. Open Government Data – or who knows what?

My second example takes a look at a very different aspect of e-democracy: Open Government Data (OGD) or – with a stronger focus on machine-readability - Linked Open Government Data (LOGD). In contrast to the previous example, where the citizens were asked to provide information to the administration, in this context the government, resp. the administration has some information and is requested to make it publicly available in accordance with certain standards and principles. The following principles are often referred to in Open Government Data initiatives:

> Government data shall be considered open if they are made public in a way that complies with the principles below:
>
> 1.Complete – All public data are made available. Public data are data that are not subject to valid privacy, security or privilege limitations.
>
> 2.Primary – Data are collected at the source, with the finest possible level of granularity, not in aggregate or modified forms.
>
> 3.Timely – Data are made available as quickly as necessary to preserve the value of the data.
>
> 4.Accessible – Data are available to the widest range of users for the wider range of purposes.
>
> 5.Machine processable – Data are reasonably structured to allow automated processing.
>
> 6.Non-discriminatory – Data are available to anyone, with no requirement of registration.
>
> 7.Non-proprietary – Data are available in a format over which no entity has exclusive control.

8.License-free – Date are not subject to any copyright, patent, trademark or trade secret regulation.

(Linked) Open Government Data is an international initiative rooted in different communities: the Semantic Web community, the Open Government community as well as the e-democracy community.[50] All initiatives share an interest in the availability of government data, but for slightly different reasons: while the Open Government initiatives focus on transparency and freedom of information, e-democracy rather explores new forms of participation, open data just being one factor enabling participation. For the Semantic Web community finally, government data are just another important type of data to be processed. Hence, even within the core of the (Linked) Open Government Data community differences in foci, motives and emphasis can be discerned. Moreover, one has to take into account that the members of the (Linked) Open Government Data community – or rather communities – are just one stakeholder amongst others. The most obvious other stakeholders are those involved in politics and administration. Yet, other stakeholders which are not as obviously related to OGD play a role as well, e.g. media, academia, industry or companies, as agents who are interested in the data, who can provide services, etc. Finally, there is an abundance of "affected others", i.e. all those individuals who are related in various ways to the data to be made publicly available.

In Austria, two initiatives are the main proponents of open government data: Open Government Data Austria and Open3, the former being closer affiliated to the semantic web community, the latter rather to e-Government community. In recent years, the city of Vienna has promoted OGD through various activities. On the website http://data.wien.gv.at/, the city provides access to data about Vienna's population, education, budget, sparetime activities and culture, health, public institutions, social, environmental, administrative and traffic-related issues as well as various city maps. Crucially, much of the location-based data can be displayed within the city maps, i.e. it is possible to see the Kindergartens, construction sites, police stations, public water fountains, etc. embedded in the city map of Vienna. Moreover, links to different apps for mobile phones, such as an I-phone app for parking tickets or an app showing the way to the nearest public restrooms as well as various visualization tools are provided. It is noted that only the data for the apps has been provided by the city administration, while the apps have not been developed by the administration.

[50] Axel Kittenberger, Expectations and Austrian Linked Open Government Data, in: IAS-STS 2011: Critical Issues in Science and Technology Studies, Graz, Austria, 2011.

Having introduced some background on OGD and some examples of successful collaborations between administration and OGD projects, let's return to the question of values. It seems as if all proponents share a certain set of values exemplified in the principles of the OGD. For instance, transparency seems to be an underlying value motivating OGD initiatives from the start. Privacy is another value which in principle appears to be acknowledged by all stakeholders. However, taking a closer look at the principles themselves already reveals some potential for conflicts.

Take the first principle, to make all public data available as long as they are not subject to privacy, security or privilege restrictions. This principle already indicates two issues: First, *all* public data refers to a broad range of very different types of data. That is, it ranges from data about the location of public restrooms to population statistics, from employment rates and crime statistics to financial data about how public budgets are spent (e.g. the UK-based initiative "Where does my money go?"). Moreover, different values appear to be in conflict with one another. That is when publishing data one frequently has to balance between the value of transparency (as a major underlying motivator of OGD efforts) and other conflicting values, such as privacy or security. Moreover, values and the judgments on the respective importance of values may differ between different stakeholders. It has been shown before that different communities do not only differ with respect to the type of data they consider relevant, but also with respect to the ideal balance between the values of transparency and other values, such as most notably privacy. [51] And when it comes to stakeholders: frequently there are *affected others* who are not involved in the decisions-making process about which data are made available in which form. National differences in making criminal records publicly available and the roles of different stakeholders and affected others may just serve as one particularly striking example of differing value judgments concerning the right balance between privacy and transparency here. Even a high-level agreement on values such as privacy can therefore not prevent conflicts on lower levels of decision-making. That is, acknowledging the high-level value of privacy does not automatically explain what exactly privacy means in a given context or what it means for deciding whether or not a certain set of data should be published or not. It also does not help in cases where different values need to be balanced, e.g. for deciding which granularity of data is best suited to confirm to principle 2, without infringing the privacy rights of some affected agents.

[51] Cf. Piotrowski and Ryzin (note 41).

Finally, OGD is a case in which the link between knowledge – or rather data - and power becomes rather obvious. OGD often is meant to promote *empowerment* of citizens or *bottom-up control*. However, it is not hard to see that this shift of power relations can lead to different types of conflicts between various stakeholders. It is not only the case in science, but also in the realm of politics and administration, that if data is made available, official claims can be contested. Having access to data, allows new players to offer their interpretations of data, their own judgments which may or may not coincide with official statements and conclusions. This aspect becomes particularly controversial in the case of so-called "non-experts". A related fear concerns questions of liability in case of incorrect data: who is to be held responsible for the (unforeseen) consequences of incorrect data sets? It should have become obvious that besides diverging financial interests (i.e. data that is made public it can hardly be sold any longer), various value and stakeholder conflicts, the link between data and power is yet another barrier to increased transparency.

If one conclusion should be drawn from this example it would be that the devil – as per usual – is in the detail. Not only are values always someone's values and thus different stakeholders may judge the respective importance of a certain value differently. Even if there was a high-level agreement on the importance of a certain value or even the relative importance of different values, it would still be left open for discussion how this value should be accounted for and what "taking privacy concerns serious" means in a given context and for a particular decision. And finally, the principles of OGD already indicate that there are inherent value conflicts in the goals of OGD itself, because the value of transparency itself always needs to be balanced and weighed against other values such as privacy, security, secrecy, etc. Hence, *Value-Sensitive Design* with its emphasis on values, value conflicts and the role of different stakeholders seems to be particularly suited to analyze specific projects in the field of OGD.

VI. E-Voting – or how and why to (dis-)trust E-Voting?

Finally, I want to draw attention to the role of values as well as value conflicts in e-voting systems as yet another very specific type of e-democracy tools. In particular, I draw on Roberto Casati's observations and arguments concerning the relationship between trust, secrecy and accuracy in voting systems.[52] In this paper Casati argues against electronic voting

[52] Roberto Casati, Trust, secrecy and accuracy in voting systems: the case for transparency, *Mind and Society* 9, 2010, 19-23.

systems from an epistemological perspective by emphasizing the problems that arise due to their lack of transparency.

According to Casati, secrecy and accuracy are desired in most voting systems. Indeed, accuracy is a desideratum of all voting systems, while secrecy requirements differ, e.g. secrecy is not needed in the case of polls where people simply raise their hands. Nonetheless, in many voting systems secrecy is required to avoid coercion. The problem is, that there is an inherent tension between accuracy and secrecy in voting systems: tracking votes in order to ensure accuracy often goes hand in hand with giving up secrecy, as is the case in raising one's hands. Disentangling the vote from the voter to ensure secrecy then involves *delegating* the counting process to a counting agent with the effect that the voter herself cannot overlook the process of counting votes anymore, but has to *trust* the agent to correctly account for her vote while keeping it secret at the same time. The result is a dilemma of trust: "On the one hand, reinforcing secrecy means delegating the implementation of accuracy. Trust in the secrecy of the system is accompanied in potential mistrust in its accuracy. On the other hand, trust in accuracy can be improved, but then secrecy will have in the norm to be given up".[53]

Now, the problem with e-voting systems is that these trust issues are even more aggravated. If a voter submits her vote to an electronic voting system, she has to trust that both accuracy and secrecy are secured by the system. But *on which grounds* can she trust that secrecy and accuracy are secured? Or with Casati's words: "How can the individual voter know that her voting intention is not kept by the system in close association with her identity, or that her validly expressed intention is counted by the system?" [54] Here, in addition the values of secrecy, accuracy and trust, a fourth value comes into play: transparency.

Casati argues that while regular paper-based voting mechanisms are epistemically transparent to the regular voter, this is not the case in e-voting systems, where the mechanisms for ensuring both secrecy and accuracy are inaccessible to regular voters and require expert knowledge. In the case of paper ballot-voting, an implicit understanding of the physical properties of the urn in which the ballot is dropped (i.e. that it is normally not possible to figure out how someone has voted because the ballots are mixed in the urn) as well as the fact that the voter herself fills out the ballot and drops it into the urn, ensures the trust into the secrecy of this voting procedure. Accuracy by contrast has to be controlled by different means, such as the presence of representatives of different parties in the counting process or the possibility to recount the physical ballots in case of doubt. Yet, these

[53] See Casati (note 52), 20.
[54] See Casati (note 52), 20.

mechanisms again are comprehensible to the average voter and ensure her trust into the accuracy of voting systems. "The key point here is not simply that the whole process guarantees, in principle, both accuracy and secrecy. It is rather that the factors that ensure accuracy and secrecy are perfectly transparent to anyone willing to reflect on them"[55].

This is not the case in e-voting systems, where the mechanisms to ensure secrecy and accuracy are not accessible to voters. Hence, *even if* secrecy and accuracy of e-voting systems can be secured – a big if, taking into account the difficulties of creating IT systems which are not vulnerable to system attacks – e-voting systems would still have a major disadvantage as compared to regular paper-based voting systems: their lack of transparency. This transparency however, is needed because in the end "[r]epresentatives elected under opaque conditions would not be trustworthy"[56].

It is therefore on epistemological grounds that Casati argues against e-voting and concludes that „[t]he main reason for keeping manual voting is related to its intrinsic open structure, which can be checked simply and effectively at all crucial junctions by every voter, thereby enhancing trust. No matter what the benefits of electronic voting, these will never be enough to overcome the wide epistemological gap between them and the manual voting on the issue of trust"[57].

Casati's argument has been portrayed in some detail to show the necessity of careful philosophical analyses of the values involved in e-voting systems. Clearly, these considerations would remain in the conceptual phase of a full VID-circle. However, as this example crucially shows, certain results of the conceptual analyses may bring this circle to a halt by showing the infeasibility of certain e-democracy tools. That is, conceptual analysis may lead to the insight that certain values or value combinations cannot be fulfilled in electronic systems in principle. A plausible conclusion could be that such systems should therefore not be used or developed further in the first place, because their disadvantages – or dangers – outplay the desired benefits.

VII. Conclusions

The goal of this paper has been to demonstrate the utility of VID, resp. VSD as guiding frameworks for critical analysis, design and development of e-democracy tools and projects. The role of values in the field of e-democracy is even more pronounced than in other areas of

[55] See Casati (note 52), 21.
[56] See Casati (note 52), 23.
[57] See Casati (note 52), 22.

ICT design, because e-democracy tools are not only often meant to support or enable certain democratic values, such as transparency or freedom of information. Conflicts between different values, e.g. between transparency and privacy as well as conflicts between different stakeholders appear to be inherent in design of many e-democracy tools. The *Values in Design* perspective therefore can offer valuable insights and methodologies in this context by emphasizing several important issues. First, the existence of multiple and potentially conflicting values in e-democracy indicates the need to carefully assess the different values and stakeholders involved, including the often unthought-of affected others. Only carefully conceptual and empirical research enables designers to assess, balance and weight different values against each other and to take the different stances of various stakeholders into account.

However, conceptual and empirical research are only two phases of the ideal VID-loop: for values to be effective in information technologies, they need to be translated into functional requirements for information systems design.[58] That is, abstract notions, such as transparency, trust, or privacy in the end need to be formalized into software code, a process which is not only highly complex, but also known to be easily subject to various types of bias.[59] These technicalities therefore also require careful VID-inspired assessment.

Moreover, as sociological and ethnographic research on technology design, usage and appropriation has shown, the mere intentions of designers by no means guarantee that a certain technological artifact will embed or even enforce certain values. Rather technologies are subject to complex processes of (re-) negotiation and appropriation through their users, especially if the users' values, practices and environments differ largely from those of the designers.[60] Hence, a crucial insight to keep in mind for the design of e-democracy tools consists in acknowledging that not only values differ between different (communities of) users, but also that even the most benevolent design intentions can be subverted through usage and (mis-) appropriation, as may be particularly obvious with respect to the danger of systems attacks in e-voting systems.

Besides demonstrating the utility of Values in Design in the realm of e-democracy, I also hope to have shown the following: That philosophical analyses of ICT in general and e-democracy tools in particular do not have to remain on the textual/linguistic or conceptual

[58] Vermaas, P., Y.-H. Tan, et al., Designing for Trust: A Case of Value-Sensitive Design, Knowledge, *Technology & Policy* 23(3), 2010, 491-505.
[59] See Friedman and Nissenbaum (note 15).
[60] See Akrich (note 20).

level, but that the material or technical level of e-democracy is also highly relevant for philosophical analysis and intervention.

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E-democracy as the Frame of Networked Public Discourse
Information, Consensus and Complexity

Abstract: The quest for democracy and the political reflection about its future are to be understood nowadays in the horizon of the networked information revolution. Hence, it seems difficult to speak of democracy without speaking of e-democracy, the key issue of which is the re-configuration of models of information production and concentration of attention, which are to be investigated both from a political and an epistemological standpoint. In this perspective, our paper aims at analyzing the multi-agent dimension of networked public discourse, by envisaging two competing models of structuring this discourse (those of dialogue and of claim) and by suggesting to endorse the epistemic idea of complementarity as a guidance principle for elaborating a form of partnership between traditional and electronic media.
Keywords: democracy, information, public discourse, public sphere, complexity, complementarity

I. Democracy, complexity and space

Today, democracy has to be rethought against the backdrop of the evolution of the communication and information technologies (ICTs) in terms of an electronic democracy (e-democracy) that grows out of the complex networked society of information.[1] Out of several legitimate and important meanings of e-democracy (e-government; e-voting, etc.), I believe that e-democracy is strongly concerned with how ICTs redesign the public sphere, conceived as a category of space, in which political-public discourse and public opinion are produced on the basis of available relevant and reliable information. In this perspective, we will have three key concepts to deal with, namely, those of complexity, information and space. These issues define the conceptual perimeter of our study.

The complex networked society is defined by the fact that, in such a society, "inhabiting" (i.e. living in a space that defines the place of our identity and citizenship) is progressively being substituted by "being connected". In this sense, what is conceptually at stake is to understand and to articulate the passage from a merely physical conception of space to a networked conception of space made of informational flows and relations. The physical space

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[1] Manuel Castells, *The Rise of the Network Society. The Information Age: Economy, Society and Culture* Vol. I-III, Blackwell, Oxford 1996-98; Marc Taylor, *The Moment of Complexity: Emerging Network Culture*, Chicago University Press, Chicago, 2001; Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, Yale University Press, New Haven CT, 2006; Luciano Floridi, *Information. A Very Short Introduction*, Oxford University Press, Oxford, 2010.

is conceived starting from the relations and the properties of objects, whereas the digital space is conceived starting from the relations and the properties of digital objects that are made of bits[2] and the space of information is thought of starting from the relations and the properties of informational objects, that is, objects that can be described in terms of information at the proper level of abstraction[3] or can accomplish four elementary operations: receiving, producing, storing and treating information.[4] In the complex networked society of information subjects are subjects of relations that establish, along the informational fluxes, throughout their networked connections and interactions. The complexity of society is expressed by the fact that the outcome of interconnected subjects' interactions is not foreseeable in deterministic terms[5].

This last consideration requires us to endorse a non-deterministic conception of the impact technology displays in society. To endorse a non-deterministic conception from a socio-technological point of view does not amount however to lessening the importance of such an impact. On the contrary, technology is understood as a set of constraining affordances[6], that is, a set of both constraints and affordances (technologies that bring along constraints as well as possibilities) that gives shape to the environment in which we are engaged, namely, in which we are called upon to decide, act and interact. Our decisions and behaviours can thus be interpreted as responses – active and creative, and thus not-deterministically biased – to the constraining affordances that shape our own environment (this approach conceived in terms of constraining affordances and active responses defeats both techno-determinism and cyber-optimism). This way of understanding technology is particularly consistent with the conception of epistemology we endorse, as we will make it clear in the next paragraph.

The technological constraining affordances relative to information and communication give shape to the democratic space where we are engaged in forming not only our opinions and beliefs (that our political decisions and actions are meant to be based on) but, first and

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[2] Jannis Kallinikos, The Consequences of Information. Institutional Implications of Technological Change, Edward Elgar: Cheltenham, UK – Northampton, Mass. USA, 2006; Danah Boyd, Social Network Sites as Networked Publics: Affordances, Dynamics, and Implications, in: Z. Papacharissi (ed.), Networked Self: Identity, Community, and Culture on Social Network Sites, Routledge, London, 2010, 39-58.

[3] Luciano Floridi, The Method of Levels of Abstraction, *Minds and Machines*, (2008) 18.3, 303-329, and On the Intrinsic Value of Information Objects and the Infosphere, *Ethics and Information Technology*, (2003) 4.4, 287-304.

[4] Michel Serres, *Temps des crises*, Editions Le Pommier, Paris, 2009.

[5] See Taylor (note 1).

[6] Barry Welmann *et al.*, The Social affordance of the Internet for Networked Individualism, *Journal of Computer-Mediated Communication*, (2003) 8.3; Benkler (note 1); Jannis Kallinikos, Governing Through Technology. Information Artefacts and Social Practice, Palgrave Macmillan, Houndmills Basingstoke, 2011; Luciano Floridi, The Philosophy of Information, Oxford University Press, Oxford, 2011.

foremost, our own political subjectivity. In relation to the evolution of technology and notably to the evolution of ICTs, the question is to rethink how the technological constraints and affordances redesign the space in which the political subjectivities and the public opinion are formed.

This already implies implicitly, that the publicness of the digital space of information and communication cannot be intended, according to the reflection of Jürgen Habermas for instance, exclusively as the place where relevant information is gathered and selected, public opinions are formed and expressed, and rational arguments guiding collective decisions are proposed and, reflexively, criticized and refined. In the backdrop of the complex networked society of information, the publicness of the digital space of information and communication is also the dimension in which new actors (notably emerging from civil society) can engage in mutual communication, merge their desires and democratic expectations and, thereby, claim to be recognized as political subjects.[7]

Our hypothesis consists at saying that the evolution of ICTs is democratic in that it enlarges the class of what counts as relevant political information, whilst broadening as well the class of those who count as political subjects. However, this enlargement can have consequences not only from a political point of view but first and foremost from an epistemological point of view concerned with the construction of meaning by means of the political public discourse. As we will see in the third paragraph, the political public discourse may be structured according to different models of communication, those of "dialogue" and of "claim", meant to influence the crucial issue of the quality of information in e-democracy.

At present, we have to insist upon the last topic, that is, the relation between e-democracy, politics and the complex society. As remarked above, the evolution of ICTs has characterized the complex society in terms of a networked society of information in which space is no longer conceived solely as a place to live in and to occupy (with all the political and legal metaphors and concepts that go along with such representation of space). Rather, space is conceived as a place where we are connected and we interact with one another and with the environment. We have to add to this picture that the current information revolution shapes these connections and interactions out of a rigid anthropocentric perspective and this happens in two different ways.

[7] See also, in this perspective, Antonio Tursi, Politica 2.0. Blog, Facebook, Wikileaks: ripensare la sfera pubblica, Mimesis, Milano, 2011.

On the one hand, it is possible to conceive, according to the philosophy of information of Luciano Floridi, the space of information as an "infosphere"[8], a neologism that was coined after the idea of biosphere meaning that the whole environment is made up by informational objects and by their relations. According to this idea, every entity can be described and experienced by an epistemic agent at the informational level of abstraction as a set of information. The informational representation of being proposed by Luciano Floridi has important and direct consequences for an epistemology and an ethics of information as well as influence over a political and legal philosophy[9]: the first and most striking consequence of such an approach consists in abandoning a philosophically and morally rigid anthropocentric perspective by treating human beings as informational objects as all the other entities of the universe. The second consequence affects more directly the present topic and it consists in saying that the space of information conceived in terms of the infosphere includes both the *analogue* and the *digital* space: this means that we are confronted with the need to account epistemologically for an integrated space of information and communication.

On the other hand, according to a pancomputationalist theory of information that has been recently investigated in philosophical terms by Michel Serres[10], it is possible to overlook the dichotomy subject/object, that grounds our entire epistemological and moral representation of the universe in modern times, since every entity is no longer conceived either as a subject or as an object but, rather, as an informational system capable of accomplishing four basic operations, i.e. to receive, produce, store and treat information. In both these perspectives, space is understood on the basis of the properties and the relations of objects conceived as interconnected entities that interact thanks to their capacity to constantly exchange and share information going beyond a rigid anthropocentric perspective.

This new conception of space is likely to modify, in the long run (even if this process already seems to have started), the very conception of politics, in which the idea of space was fundamental in the modern age. Throughout modernity, space has been the very horizon of the constitution of politics as the condition of human coexistence: this condition has been conceived by political power in terms of control over a territory. The current evolution of ICTs is likely to alter this conception of politics: some processes, like that of globalization or

[8] Floridi (note 3), On the Intrinsic Value.
[9] Massimo Durante, How Does the Evolution of ICTs Change the Law? An Approach to Law Through the Philosophy of Information of Luciano Floridi, in: M. Arias-Oliva, T. Ward Bynum, S. Rogerson, T. Torres-Coronas (eds.), The "Backwards, Forwards and Sideways" Changes of ICT, University Rovira I Virgili Press, Tarragona, (2010) 136-144, and The Theory of Information of Luciano Floridi. The Consequences of the Informational Turn for Law and Ethics, Springer, Dordrecht, (forthcoming).
[10] Serres (note 4).

the crossing of political, legal, and cultural boundaries[11], are already at work. In the long run, politics will no longer be conceived in terms of control over a territory but, rather, as the management over the whole life-cycle of information (creation, elaboration, distribution, storage, protection, usage and possible destruction of information[12]), since information will constitute both the basic good exchanged and the very fabric of reality. This brings about two main consequences.

The first one has been well captured by Jannis Kallinikos, stating that the current computational rendition of reality has "far-reaching implications in the sense of recapturing a growing proportion of the physical and cognitive landscape of contemporary life into the medium of permutable and recombinable information"[13]. This challenges our tendency to think about reality in terms of stable and enduring structures and institutions[14]. This consideration will be illustrated in the fourth paragraph when dealing with the phenomenon of virtualization of content that is an emergent property of democracies based on media power.

The second consequence has been well expressed by Manuel Castells, stating that contemporary construction of politics occurs through media power[15]. The communication (the mainstream political-public discourse) through which are selected, formed, and legitimized the "ends of politics" is structured within the life-cycle of information. In this perspective, e-democracy is called upon to be the "frame" of the mainstream political-public discourse through which politics form, select and legitimate its ends. This implies, as pointed out by Jürgen Habermas[16], that democracy may have an epistemic foundation as far as the formation of the political-public discourse, through which meaning and consensus are constructed, can be subjected to criticism. This requires us to focus on what epistemology and models of communication ground political-public discourse in the renewed public sphere made up by the interplay between traditional and electronic media.

In this perspective, the "e-democratic frame" is a matter of information and communication. In fact, information is the basis on which beliefs are formed and decisions are taken: in this sense, information is a primary instrument for governing. As it has been pointed

[11] David Johnson & David Post, Law and Borders. The Rise of Law in Cyberspace, *Stanford Law Review*, (1996) 48; David Post, In Search of Jefferson's Moose. Notes on the State of Cyberspace, Oxford University Press, New York, 2008; Andrew D. Murray, The Regulation of Cyberspace: Control in the Online Environment, Abingdon, Routledge Cavendish, 2007; CEPE, Crossing Boundaries. Ethics in Interdisciplinary and Intercultural Relations, Proceedings of CEPE 2011 (edited by J. Mauger), INSEIT publications, 2011.
[12] Luciano Floridi, A Look into the Future Impact of ICT on Our Lives, *The Information Society*, (2007) 23.1, 59-64.
[13] Kallinikos (note 2) at 6.
[14] See again Kallinikos (note 2).
[15] Manuel Castells, Communication Power, Oxford University Press, Oxford, 2009.
[16] Jürgen Habermas, Il ruolo dell'intellettuale e la causa dell'Europa, translated by C. Mainoldi, Laterza, Roma-Bari (*Ach, Europa. Kleine Politische Schriften XI*, Suhrkamp Verlag, 2008), 2011.

out[17], the governance of society is no longer centered upon hard power (i.e. military force, means of coercion, sanctions, etc.) but, rather, upon soft power (i.e. the ability to influence behavior through the construction of meaning on the basis of discourses through which social actors guide their action[18]).

Five main features characterize the construction of meaning accomplished in the political-public discourse in the complex networked society of information:

1) the construction of meaning is distributed, namely, it is accomplished by a multiplicity of interconnected actors throughout networks that can be represented as radically distributed or as moderately decentralized[19];
2) the role of each actor in the construction of meaning depends on the role that each actor plays as the node of a network and on the attitude of that network to collaborate or to compete with other networks;
3) the construction of meaning depends, more generally, on the properties of the information exchanged and shared throughout the networks (which define the epistemological constraining affordance as informational resources[20]) and on the properties of the architecture of networks (which define the structural constraining affordances as they give shape to the environment in which social and political actors are engaged);
4) the construction of meaning provides political power with its legitimization as far as it raises consensus on (a) the "ends" and (b) the "scale" of the political action;
5) in a complex networked society of information consensus is cognitively based on perceived trust more than on experienced trust: this means that, in media democracy, it is not only a question of relational trust, expressed with regards to specific political actors, but it is matter of systemic trust, expressed in relation to the system those actors are part of.

The last point is crucial, since consensus is not mainly formulated and manifested by means of "real" attribution of trust directed towards specific political actors. On the contrary, it is formulated and manifested by means of a "virtual" attribution of trust, which is indirectly

[17] Joseph Nye, The Powers to Lead: Soft, Hard, and Smart, Oxford University Press, US, 2008.
[18] Castells (note 15).
[19] See, on this point, Alexander Galloway, Protocol. How Control Exists After Decentralization, MIT Press, Cambridge Mass, 2004; Alexander Galloway & Eugene Thacker, The Exploit. A Theory of Networks, University of Minnesota Press, Minneapolis, 2007; Benkler (note 1).
[20] See Floridi (note 6) at 77.

expressed in relation to some constituent issues of the system that these actors are part of. Direct and real consensus is substituted or, at least, prepared by indirect and virtual allegiance. This aspect becomes one of the central features of media power that deserves special attention, because the place of (legitimization of) power (through the fiduciary construction of consensus) is then rather "virtual" than empty: we are thus confronted with a phenomenon that we could define in terms of a "virtualization of consensus". This virtual consensus, allegiance or commitment, is indirectly manifested, as we will see in the third paragraph, towards what is meant to be put "at risk" in the system: this explains why "risks" are fabricated by traditional media and "fear" has become the key issue of the political-public discourse.

We will come back to this point. At present, we should focus our attention on the claim that democracy has an epistemic foundation. This requires us, first, to endorse a conception of epistemology that would be consistent with the technological evolution of ICTs and, secondly, to envisage, on this epistemological basis, what the models of communication are according to which political-public discourse is meant to be structured out of the interplay between traditional and electronic media.

II. Constraints and affordances: the epistemological principle of complementarity

We have been speaking so far of "constraints" and "affordances" in technical terms: we have now to elucidate these concepts from an epistemological point of view, in order to introduce the principle of complementarity as the epistemic backdrop of e-democracy. In order to do so, we will take advantage of Mauro Ceruti's[21] epistemological reflections on these points.

To start with, we have to remark that the process of "decentralization" that has been brought about by the technological architecture of the net and, more generally, by the complexity of networks – which has facilitated users' access to information and participation in the generation of content – has also been underlined and explained in epistemological terms. As Ceruti puts it[22]:

> Contemporary epistemological reflection instead refers the concept of decentralization to two equally fundamental facts: the *proliferation* of the real in objects, levels, spheres of reality, and the awareness that such proliferation is always translated in the language and in the communication of *an observer* [*our transl.*].

[21] Mauro Ceruti, Il vincolo e la possibilità, Raffaello Cortina Editore, Milano, 2009.
[22] Ceruti (note 21) at 5.

This process of decentralization has been stressed also by Luciano Floridi[23] and formulated in informational terms, through a cluster of concepts (i.e. proliferation or flourishing of informational objects, the levels of abstraction, the semantic role of the informee, etc.), which we cannot develop in the present context. It suffices to notice that, according to Floridi, decentralization endorses an universalistic approach based on the notion of informational object: namely, any entity can be described and experienced by an epistemic agent as a sum of well-formed information. Let us come back to our main question.

The process of "*decentralization of the image of the cosmos*" comes together and is coupled with an analogue process of "*decentralization of our ways of thinking that cosmos*"[24]. Such processes (i.e. the role of the observer and a new interpretation of the laws of nature) have brought about an epistemological switch from a "*science of necessity*" to a "*science of game*"[25]:

> To talk of game, in order to describe the evolutionary and historical processes of social and natural systems, is to hint to a deeper understanding of the mechanisms guiding the *history of nature*. […] Evolutionary processes always depend upon insoluble interaction among general mechanisms which operate as constraints – "laws" – and the variety, the individuality, the spatial-temporal singularity of the events. Nature and history all the time play interesting games: i.e. games that do not necessarily have a winning strategy elaborated from the start. The course of the game always occurs within and though the interaction between rules posed as constraints and as constituents of the game, chance, and the contingency of particular events and of particular choices, and the strategies of the players in utilizing the rules and chance so as to construct new scenarios and new possibilities [*our transl.*].[26]

Constraints limit the sphere of possibilities not in the sense of being a cause of a determined, necessary effect, but, rather, in the sense that, by delimiting the sphere of possibilities, they afford new opportunities. This point has been accurately articulated by Ilya Prigogine and Isabelle Stengers:

> A constraint […] does not merely delimit the possibilities; it is also opportunity. It is not simply imposed from the outside onto a pre-existing reality, but participates in the construction of an integrated structure and determines in the light of a particular occasion an entire spectrum of intelligible new consequences. [27]

From this outlook, we are allowed to say that our understanding of technologies in terms of constraining affordances is consistent with the epistemological construction of the notions

[23] Floridi (note 6).
[24] Ceruti (note 21) at 5.
[25] Ceruti (note 21) at 10.
[26] Ceruti (note 21) at 10.
[27] Ilya Prigogine & Isabelle Stengers, Vincolo, *Enciclopedia Einaudi*, Einaudi, Torino, vol. 14 (1981), 1064-1080, cit. at 1076.

of constraints and affordances (or possibilities or opportunities) suggested by Ceruti[28] citing Prigogine and Stengers (as well as it is consistent with the semantic interpretation of informational resources in terms of constraining affordances formulated by Luciano Floridi[29]).

The idea of science as a "game" is thus based on the abandon of the image of science as an asymptotic process of approximation towards a unique and fundamental place of observation and explanation. On the contrary, the game consists precisely in the reintroduction of the observer within the system of observation and explanation.[30] The categorical universe of science ceases to appear as something unitary, homogeneous and fixed once for all; on the contrary, it appears as characterized by an irreducible plurality of observers' viewpoints. This brings about a main epistemological consequence that is decisive for the purpose of our paper and the correct understanding of the epistemic foundation of e-democracy:

> The irreducibility of the observers' points of view *hic et nunc*, their presence in every description, in every strategy, indeed, in every matter of heuristics, sparks off an image of the development and structure of knowledge according to which the *possible universes of discourse are never defined exhaustively*, *but are constructed and depend on the network of concrete relations of antagonism, complementarity and cooperation between the multiple viewpoints at play* [*our transl.*].[31]

What does it imply? This epistemological approach not only endorses a necessary pluralism of observers' viewpoints but it asserts that the epistemic question is no longer that of reconciling different points of view; rather, the question is to understand how different points of view produce themselves reciprocally[32]:

> The real reversal in perspective consists in the recognition of the irreducibility of the points of view or, what is more, in the recognition of their proliferation in different directions and at different levels. There is a plurality of points of view belonging to concrete subjects like those adopting different systems of categorical references to judge the same evidence. There is also a plurality of points of view within the same subject endorsing, with regard to some problems and ends, different systems of categorical references, logics and forms of thinking [*our transl.*].[33]

This understanding of knowledge is thus no longer characterized by the need to establish a synthesis between these different viewpoints (that can overrule some points of view in favor of some others). On the contrary, it is characterized by the image of antagonism, cooperation

[28] Ceruti (note 21) at 40.
[29] Floridi (note 6).
[30] Ceruti (note 21) at 39-40.
[31] Ceruti (note 21) at 43.
[32] Ceruti (note 21) at 44.
[33] Ceruti (note 21) at 96.

and complementarity between different systems of categorical references: in this perspective, the epistemic attention is rather focused on the conceptual matrices that make these systems or viewpoints antagonist, concurrent or cooperative. According to this approach, the unity of knowledge is not expressed by synthesis but, rather, by complementarity and epistemology can be said to be inspired by a principle of complementarity that is an "essential precondition for every epistemological inquiry".[34]

Different points of view as well as different forms of discourse should not be conceived as mutually alternative but rather as antagonist, concurrent or cooperative, according to the differences between conceptual matrices that make them differ from one another. Each one can participate in the construction of knowledge within the constraining affordances that characterize their respective conceptual matrix: this perspective requires us to move from a conception of epistemology based on *representation* to a conception of epistemology based on *construction*.[35]

This brings about a profound consequence that is decisive for us. The irreducible pluralism of viewpoints displayed by the principle of complementarity does not only imply that antagonist or cooperative discourses concur in the construction of knowledge according to the interplay between their conceptual matrices (the set of their constraining affordances): it implies more. Precisely, it implies that the whole cognitive universe is constituted as a *polisystemic subject*[36] that appears to be the sphere of antagonism and cooperation between systems that are characterized by different logics, hierarchies, subjects and viewpoints:

> This image of the subject as being composed by multiple systems constitutes a mode of thought which decisively orients many of the most interesting contemporary studies into the nature of the subject at whatever level they are placed [*our transl.*].[37]

Such an epistemological perspective is therefore crucial in order to account for what we could call as the subject or the system of communication in our e-democracies. In fact, it is important to conceive the epistemic foundation of e-democracy on the basis of the requirements displayed by the principle of complementarity, according to which the subject or the system of communication may be understood as an 'integrated public sphere' where do occur antagonism and cooperation between systems that are characterized by different logics, hierarchies, subjects and viewpoints. This requires that different models of communication (i.e. models that are formed on the basis of different conceptual matrices) can compete or

[34] Ceruti (note 21) at 97-98.
[35] Ceruti (note 21) at 103.
[36] Ceruti (note 21) at 111.
[37] Ceruti (note 21) at 111.

cooperate not only in (a) the construction of an heterogeneous basis of information, but also in (b) the process of subjectivation.

In other words, differences between outlets of communication should be traced back to differences between conceptual matrices (i.e. sets of constraining affordances), since the framework of complementarity is based both on the refusal of a unique fundamental point of observation and explanation and on the "recognition of the multiplicity of places of observations and explanations".[38] So, the question is to describe not only a model of communication that sets the conditions of dialogue between different subjects and viewpoints but also a model of communication that sets the conditions of the recognition of new observers (i.e. subjects, interlocutors, or sub-systems of communication).

III. Models of communication of political-public discourse

If understood as the frame of political-public discourse, democracy can be represented through two models of communication: i.e. the model of "dialogue" and the model of "claim". According to the principle of complementarity, these models can characterize different stages of democracy but can also coexist within the same stage of democracy; they can characterize different outlets of communication (traditional or electronic) but can also coexist in the interplay between traditional and electronic media, as we will point out later in the paper. These two models differ from one another with regard to: (a) the relation between political actors and communication; and (b) the aim of communication itself.

1. The model of dialogue

The model of dialogue is characterized by the fact that interlocutors precede the communication and they structure it through their communicative interaction. In a sense, it is possible to affirm that they precede "the word" and they constitute it as the horizon of their intersubjective agreement. Non-metaphorically speaking, this means that interlocutors, i.e. the political actors, interact communicatively on the basis of a political subjectivity already formed and recognized, which is thus fully developed in communication.

According to this model, the aim of communication is to provide foundation, through confrontation of opinions, refinement of arguments and subjection to criticism, to a rational agreement and thus to political consensus. Such a form of consensus legitimizes the decisions that guide political action. In other words, through the public use of reason, democracy is provided, in the sphere of reflexivity, an epistemic foundation: public opinion is not only a

[38] Ceruti (note 21) at 120.

matter of "opinions and beliefs" but, more and more, a question concerning the conceptual matrix and the informational foundation of such opinions and beliefs. The fact that democracy has an epistemic foundation seems to be a key achievement of political thought for a deeper understanding of the complex networked society of information. And this is true even if, according to a mature theory of information[39], the question of information is not totally coextensive with the question of truth.

In fact, on the one hand, the content of a false statement can be more informative than the content of a true statement, since the former may be pragmatically *less distant* from truth than the latter[40] (consider the following case: there are eight people in a room. The sentence "there are seven people in the room" is false. The sentence "there are some people in the room" is true. The former is more informative than the latter since it is less distant from truth).

On the other, the overload of information has made lying *useless* in the information society, since framing and selection of information are more viable ways to misrepresent reality than disinformation and misinformation.[41] Consider the case of homicides for the construction of "social alarm": homicides accomplished by acquaintances (i.e. friends, relatives, lovers, etc.) are more numerous than homicides accomplished by strangers but they are framed and represented as "private events", whereas homicides accomplished by strangers are framed and represented as "social events". However, to state that strangers have accomplished a high number of homicides or crimes in relation to the number of strangers (present in Italy) is not false. In other words, we have enough instances and information to construct both the homicides by acquaintances and the homicides by strangers as factors of social alarm: what type of social alarm we represent is a matter of political decision, even if such a representation is often conducted, strictly speaking, within the perimeter of truth. The potential *truth-tracking* attitude of information should be analyzed from a wider cognitive perspective.

The more the complex networked society uses ICTs and politics turns into an articulated form of management and control over the life-cycle of information, the more political power will be based on that sum of information (beliefs and opinions) capable of generating a certain level of trust and thus of consensus (trust being a sort of precondition for consensus). In this sense, the political power will be legitimized by an epistemic trust (i.e. trust *that* reality is as it appears in the public sphere) that constitutes the general frame within which both the

[39] Floridi (note 6).
[40] See again Floridi (note 6).
[41] Massimo Durante, Perché l'attuale discorso politico-pubblico fa leva sulla paura?, *Rivista di Filosofia politica,* XXIV.1, (2010), 49-70.

relational trust (i.e. trust *into* political actors) and the systemic trust (i.e. trust *in* the political system as a whole) are attributed.

In the perspective of the model of dialogue, an aspect deserves special attention, since it often causes a recurrent misunderstanding. According to this model, interlocutors are already defined in their political subjectivity: they are political actors recognized in the system (politicians, experts, professional journalists, intellectuals, etc.) and therefore they enjoy a certain level of trust in the formation of the public opinion, that is to say, salience and credibility in informational terms. In other words, they are recognized as capable to produce and/or select politically relevant and reliable information. However, this implies that, at closer examination, their communicative interaction cannot be rigorously defined as an intersubjective relation if, by intersubjective relation, we do not refer tautologically to a relation between (already constituted) subjects. An intersubjective relation is, in our opinion, more correctly understood and defined as the relation that is constitutive of subjectivity. In the case considered here, the communicative relation between political subjectivities already structured in their prerogatives should be, therefore, defined as an (epistemic) "interobjective relation", namely, as a relation that is meant to constitute or give shape to the objective conditions of the political-public discourse (i.e. the conditions making that discourse a shared and rational discourse).

In this perspective, it is necessary to clarify what are the objective conditions aimed to assure democratic communication. Furthermore, such conditions are not to be intended in our model only with regards to the "paradigm of communication" but first and foremost in relation to the "paradigm of information"[42]. The interobjective relation has, therefore, to accomplish the following objective conditions:

1) the integration in the system of communication of a plurality of informational channels (as to the logic of production and selection of information);
2) the formation of the basis of accessible information;
3) the formation of public opinion on the basis of produced and selected information;
4) the critical confrontation between public opinions and arguments.

These four basic conditions define the life-cycle of political-public information (which is described here in relation to communication in democratic societies but could be described

[42] For a comparison between those two notions of paradigm see Ugo Pagallo, Teoria giuridica della complessità, Giappichelli, Torino, 2006.

also, more generally, in the terms of the theory of information laid down by Luciano Floridi[43]: creation, elaboration, distribution, storage, protection, usage and possible destruction of information). In the complex networked society of information, the life-cycle of information is the *space* where political conflict for the acquisition and legitimization of power takes place. These conditions that frame political-public discourse are susceptible to be redesigned by the evolution of ICTs and the emergence of a networked public sphere[44]. We will focus our attention on this crucial point later on in the paper; for the moment, we have to deal with two common criticisms that are made against the hypothesis itself of an emerging networked public sphere.

Firstly, it is often stated that networked communication is unable to produce relevant and reliable information: this criticism concerns the quality of information. This criticism has been rebutted empirically, by reference to several examples[45] showing that networked communication (including online journalism) has been capable to produce relevant and reliable political information (that has given rise to political consequences in real life). The diverse "quality" of networked information has to be traced back to the diverse conceptual matrix that govern online communication. In the previous paragraph, we have discussed this point from an epistemological perspective, by stating that the epistemological principle that governs networked communication should be intended as a *principle of complementarity*[46] that is consistent with the interpretation of informational resources and networking technologies as constraining affordances.

Secondly, it is also often stated that networked communication does not give rise to real intersubjective interactions based on face-to-face relations as in real life. This criticism (which has also been referred to traditional media) can be briefly discussed here and it can be refuted in two ways.

The first one consists in saying that there are online intersubjective interactions – regardless to the strict requirement of face-to-face relations – which are not displayed according to the model of dialogue but according to the model of claim, as we will see in a moment.

The second one is even more incisive and it is based on what we have already remarked: the communicative interaction displayed (offline or online) according to the model of dialogue does not give rise to an intersubjective but to an "interobjective" relation, aimed to

[43] Floridi (note 12).
[44] Benkler (note 1) and Castells (note 15).
[45] See again Benkler (note 1) and Castells (note 15).
[46] Ceruti (note 21).

accomplish the epistemic objective conditions at which the political-public discourse may be perceived as shared and rationale discourse. In this perspective, online communication does not differ from offline communication based on the model of dialogue. Time has come to turn our attention to the second communicative model: that of claim.

2. The model of claim

The model of claim is characterized by the fact that "the word" precedes the interlocutors and establishes the communication. The discourse does not primarily carry a message but a claim: it requests the attention of the interlocutor. Through the discourse, each interlocutor is invited to acknowledge the other in her subjectivity. The word – the order of discourse – does not constitute here the space where the interobjective relation takes place but the way through which the process of political subjectivation may start. According to the model of claim, interlocutors are not pre-constituted in their (political) subjectivity; on the contrary, they constitute it through their communicative interaction.

Whether in the model of dialogue the accent is placed on the idea of communication (as the horizon of the interobjective relation), in the model of claim the emphasis is on the idea of attention (as the horizon of the intersubjective relation). This consideration is backed by the evolution of ICTs and of the complex networked society of information: where information is scarce, communication is fundamental as a way of sharing information; where we face information overload, *attention* becomes crucial[47] as a way of selecting relevant and reliable information. What is brought to attention is not so much the topic of discussion but the request of recognition (which entails the process of subjectivation). In that case, the question is not to define the objective but the subjective conditions of communication: that is, the extent of the concept of political interlocutor (i.e. the range of participants, in the networked public sphere, in the formation of political-public discourse).

According to the model of claim, the aim of communication is the process of subjectivation that defines the perimeter of those enabled to assert their claims (interests, desires, expectations, requests, etc.) as a political instance or a critical judgement addressed to the political regime. This model does not belong only to the achieved democracies but, first and foremost, to the developing or potential democracies. An appealing example can be drawn by the recent "wave of upheavals in the Mediterranean countries", which is explicitly concerned with the use of ICTs in the formation of public opinion.

[47] Bernard Stiegler, Prendre soin de la jeunesse et des générations, Flammarion, Paris, 2009.

In order to illustrate such an example, we will refer to what has been stated by the European Commission: "The use of electronic communications technologies – on top of satellite broadcasting – greatly facilitated the wave of upheavals in the Mediterranean countries. The widespread use of mobile phones combined with social networking via internet showed the importance of information society tools and technologies to the circulation of information. In countries where the circulation of information is partially restricted such tools can greatly contribute to the democratization of societies and the creation of public opinion through the promotion of freedom of expression"[48]. In line with this reasoning, the European Commission has also significantly stated: "Moreover, ensuring the security, stability and resilience of the Internet and of other electronic communication technologies is a fundamental building block in democracy. It is necessary to avoid arbitrarily depriving or disrupting citizen's access to them. Given the trans-border and interconnected nature of electronic communications technologies, including the Internet, any unilateral domestic intervention can have severe effects on other parts of the world. The Commission will develop tools to allow the EU, in appropriate cases, to assist civil society organizations or individual citizens to circumvent such arbitrary disruptions"[49].

Three aspects of the European Commission's communication are here to be stressed (which appear to be in line with what we have argued so far):

1) the European Commission recognizes and underlines the need to ensure the *security, stability and resilience* no longer of traditional political institutions but of the Internet and of other electronic communication technologies as a "fundamental building block of democracy";

2) the European Commission overtly acknowledges civil society organizations and individual citizens as crucial "political actors" in the upheavals of Mediterranean countries: in this case, the recognition of political subjectivity stems from the technological capability of networked communication users to link individual desires, represent political expectations and claim public attention;

[48] EC Communication, A Partnership for Democracy and Shared Prosperity with the Southern Mediterranean, *Joint communication to the European Council, the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions*, Brussels (8.3.2011), COM. 200 final, 2011, 10.
[49] EC Communication (note 48) at 11.

3) networked communication enables both "the creation of public opinion through the promotion of freedom of expression" and a likewise crucial practice of "concentration of attention"[50] over selected political issues and claims: this means, according to our model, that the creation of public opinion and the shared request of public attention, enabled and fostered by the Internet and the other communication technologies, not only brings into the general notice what is politically relevant (from an informational point of view) but, more importantly, also entails a process of *political subjectivation* that enlarges the class of those who are recognized as sources of relevant political information.

This case shows that the model of dialogue does not suffice by itself to explain how the public sphere is structured in the e-democratic frame of the complex networked society of information. The model of claim is a necessary integration of the communicative model of dialogue, and it will enable us to better account for the way ICTs might redesign the subjective and objective conditions of political-public discourse.

3. The subjective and objective conditions of political-public discourse

As observed from the start, the first and most significant way ICTs evolution has an impact over the subjective and objective conditions of political-public discourse is by redesigning the networked space of information in digital terms.

The networked digital space of information is, from a philosophical point of view, ideal and relative. Ideal in the sense of Kant's notion of space and relative in the sense of Leibniz's notions of space[51]. Let me briefly explain these references. It is ideal, in Kantian terms, since it does not exist independently from the human mind, since the meaning of informational objects is not independent from the human mind (i.e. from the knower [the subject of knowledge] that is here the informee [the subject of information], according to Floridi's theory of semantic information[52]). It is relative, in the sense of Leibniz, since it does not exist independently of the informational objects. This means that space cannot be thought of independently from the properties and relations of informational objects (namely, independently from the relations of differences that are constitutive of data[53]). From an epistemic point of view, informational object are resources conceived as "constraining

[50] Yochai Benkler, A Free Irresponsible Press, *Harvard Civil Rights-Civil Liberties Law Review*, (forthcoming).
[51] George Diker, Kant's Theory of Knowledge. An Analytical Introduction, Oxford University Press, Oxford, 2004.
[52] Floridi (note 6).
[53] Massimo Durante, The Value of Information as Ontological Pluralism, *Knowledge, Technology & Policy*, (2010) 23.1, 149-161.

affordances"[54]. This amounts to saying that the relativity of the networked digital space of information is conceivable as the ensemble of the properties and the relations between the informational objects, that is to say, as the tension between the constraints and the affordances of the informational resources.

This requires us to precise what the properties of bits and the relations of informational objects redesigning the networked digital space of information are. We will just consider, here, their main characteristics. According to Danah Boyd[55], the constraining affordances of online communication based on the properties of bits are the following:

1) *Persistence*: online expressions are automatically recorded and archived.
2) *Replicability*: content made out of bits can be duplicated.
3) *Scalability*: the potential visibility of content in networked outlets is great.
4) *Searchability*: content in networked outlets can accessed through search.

According to Jannis Kallinikos[56], we could add the following characteristics:

5) *De-contextuability*: content made out of bits can be de-contextualized and granted new meaning.
6) *Recombinability*: content can be easily recombined through networked outlets to form new computational objects.

According to Luciano Floridi[57], the space of information (that includes both the analogue and the digital space) owns the following characteristics:

7) *Contraction*: the acceleration of every interaction (notably of informational fluxes) has contracted the physical space where we are engaged to make decisions, to act and interact.
8) *Expansion*: ICTs have expanded the virtual networked space where we can e-live.
9) *Porosity*: ICTs have increased (quantitatively) the communication between the analogue and the digital space.

[54] Floridi (note 6).
[55] Boyd (note 2).
[56] Kallinikos (note 2).
[57] Floridi (note 12).

10) *Hybridization*: ICTs re-ontologize (qualitatively) the space we live in since they progressively remove the idea of computer as an "interface" between the analogue and the digital reality in favor of a unique space of information (i.e. infosphere).
11) *Synchronization*: the widespread integration and concatenation of informational fluxes determine more and more the contingent (i.e. complex) synchronization of practices and tendencies that otherwise would be chaotic and unrelated.
12) *Correlation*: the networked dimension of informational relations is so much interconnected that each informational object that "falls in the net" is susceptible to propagate its waves across the net outside the distinction between local and remote.

If we consider the aforementioned structural constraining affordances of the information space along with the architectural[58] and economic[59] constraining affordances of the net, we may better understand how ICTs have redesigned the subjective and objective conditions of networked political-public discourse. Hereafter we resume the main consequences of ICTs' evolution for the formation of online public opinion (according to the interplay between the two communicative models of dialogue and claim) from the two points of view of informational inputs and outputs that concern both the subjective and the objective conditions of the public-political discourse:

1) Informational inputs:

1.1. A wider class of interlocutors (i.e. political actors) are enclosed among those who can produce and selected the relevant and reliable political information: this entails a greater pluralism of informational sources [subjective condition];
1.2. A wider class of informational objects (i.e. news, opinions, beliefs, etc.) is gathered and enclosed among what counts as a relevant and reliable political information, produced independently from the commercial and proprietary logic and organization of traditional media: this entails a greater pluralism of informational resources [objective condition];
1.3. A wider class of informational claims (i.e. interests, expectations, desires, requests, etc.) is produced online as a result of the contraction, expansion,

[58] Tim Berners-Lee, Weaving the Web. The Original Design and Ultimate Destiny of the World Wide Web by Its Inventor, Orion Business, Britain, 1999.
[59] Benkler (note 1).

porosity, hybridization, correlation and synchronization of the information space [subjective condition].

1.4. A wider class of informational relations (i.e. informational flows) is made possible online as a result of the replicability, scalability, scalability, searchability, recombinability and de-contextuability of content made out of bits [objective condition].

2) Informational outputs:

2.1. A wider class of interlocutors (i.e. political actors) are enclosed among those who can "check" the facts and the opinions produced both online and offline: extension of public power of control and criticism [subjective condition];

2.2. A wider class of interlocutors can bring into the "general notice" the facts and the opinions produced both online and offline: extension of the sphere of public accountability [subjective condition];

2.3. Attenuation of the balkanization of opinion (i.e. the effect of "the room of echo") as a result of the de-contextuability and recombinability of the content made out of bits [objective condition];

2.4. Increase of the "gestalt switch" in the formation of public opinions as a result of the enlargement of the basis of information available and accessible made possible by the replicability, scalability and searchability of content made out of bits [objective condition].

We have focused our analysis on the epistemic constraining affordances that enable, in our opinion, the emergence of a real and relevant sphere of networked public opinion. Of course, these epistemic conditions are also backed by the architectural and economic constraining affordances of the net[60].

Time has come to consider more closely a relevant phenomenon for democracy that seems to delineate the traditional media from the networked outlets of communication and concentration of attention: the phenomenon of virtualization of consensus.

[60] Benkler (note 1) and Castells (note 15).

IV. The phenomenon of virtualization of consensus

Some scholars have remarked that democracy is both a word and a thing[61]. In a sense, the "word democracy" is, nowadays, irrefutable and uncontested: nobody would realistically and successfully try to achieve the sovereign power or to legitimate their political action, while asserting to do so in a non democratic way or that such action could be performed outside a democratic framework. For anyone who wants to obtain sovereign power and to legitimate a political project, the reference to democracy seems to be obliged. Nevertheless, the "thing democracy" is still far from being pacifically and unquestionably envisaged and established. The word democracy is full of promises and always accompanied by principles, rights and values, whereas the thing democracy is still plenty of disillusions, shadows and troubles that oblige us to constantly watch over its "healthiness": i.e. its effectiveness or substance.

The landscape and life of democracy are thus always unquiet, shaken and perturbed, and this is all the more true as different political regimes are confronting each other in the current process of globalization. Today, in our globalised world, the quest for democracy proceeds at different pace and is subject to a peculiar contradiction. On the one hand, democracy is potentially subjected to derives: we are said to have moved from a representative democracy to an electoral democracy; from an electoral democracy to a plebiscitarian democracy; from a plebiscitarian democracy to a democracy founded on media power[62]. On the other, "democracy" is passionately sought after as it has been showed by the above-mentioned political wave of upheavals in the Mediterranean countries, where the networked circulation of information has contributed "to the democratization of societies and the creation of public opinion through the promotion of freedom of expression", as remarked with maybe too much emphasis by the EC.

Let us take the first case concerning western societies: that of democracy founded on traditional media power. In this case, the spaces of participation and of deliberation have been reduced: information and consensus have become the poles of attraction of democracy, and the construction of meaning, as already remarked, has become the way political power is obtained and legitimized. Against this backdrop, we have to remark a paradoxical phenomenon: traditional media have fostered in real life a phenomenon of virtualization of consensus, which has been contrasted in the virtual reality by means of the communication displayed through the electronic media. In a previous essay consecrated to the relevance of

[61] Ezio Mauro & Gustavo Zagrebelsky, La felicità della democrazia. Un dialogo, Laterza, Roma-Bari, 2011.
[62] Castells (note 15).

fear in the construction of political-public discourse[63], I have analyzed this phenomenon in full details that I would like to sum up briefly.

The argument is the following: "fear" has become the most recurrent and important topic of political-public discourse constructed by traditional media. More than this, it has also become the general frame through which the whole political reality is represented, interpreted and given meaning. This fabrication of meaning plays a crucial role: through the reference to what we fear, political-public discourse represents what we want to protect. In this way, the map of our interests, expectations, common goods, and desires, which are no longer made subject of our explicit claims, is publicly traced. In this sense, we are supposed to express consensus to the politics that are concerned with the promised protection of what is meant to be the content of "our own fears", which are fabricated by the political-public discourse. The fabricated fears become the information (i.e. the input) that the political system processes in order to produce consensus (i.e. the output).

In this perspective, consensus becomes virtual: this means that consensus is no longer directly manifested in relation to possible political choices but it is indirectly manifested in relation to what is assumed to be at risk in society. The manifestation of consensus is substituted or, to be more precise, is prepared by the representation of what we fear to lose. The political-public discourse elaborated by means of traditional media tends to treat audiences as a permanently "sick social body" in two senses: firstly, in the sense that the social body is not confronted with how to improve its wellness but with how to protect itself from further sufferings, diseases and losses (i.e. the virtual evil); secondly, that sickness is not measured in relation to an empirical body but in relation to a statistical construction of the social body (i.e. the virtual body). This gives rise to a crucial political phenomenon of "virtualization of consensus", which is manifested by a virtual social body in relation to virtual evils. This process of virtualization goes to the point that the place of the legitimization and the justification of political power becomes "virtual": consensus is no longer manifested but inferred by what is represented as socially perceived risk[64].

In this sense, through the fabrication of fears and risks elaborated by traditional media, real life public opinion in may be said to appear, , more "virtual" than the networked public opinion in the virtual reality. On the contrary, as we have remarked by quoting the EC communication, the creation of online public opinion can produce and display consequences

[63] Durante (note 41).
[64] Ulrich Beck, La società (mondiale) del rischio e le insicurezze fabbricate, *Iride*, (2008) 55, 511-520.

that are appreciated in real life: not only in terms of freedom of expression but also in terms of political subjectivation, according to the model of claim.

Let us briefly come back to this example, in order to explain one of the salient aspects of the social and political impact of ICTs on democracy. The following consideration is also intended to clarify in what sense technology gives shape to the environment we are engaged in throughout the establishing of constraining affordances.

Technology creates new possibilities: these possibilities can be understood as *affordances*[65]. People are enabled by new technologies to do what they could not do before: this does not guarantee for sure that they will do it. As suggested by Benkler[66], technology makes it easier (or more difficult) to perform some actions and have some human interactions. *Ceteris paribus*, Benkler says, the easiest things to do are more likely to be done, whilst the most difficult ones are less likely to be done. However, *other variables never remain constant*. This is the reason why strict technological determinism – according to which, if provided with a technology *t*, we can expect the emergence of the social relation or structure *s* – is false[67].

Let us reformulate this argument from another point of view by introducing the idea of power. As said, technology provides us with new possibilities. However, not all of them are implemented and imbedded in society. When this occurs, that is, when technologies become part of our activities, such possibilities may turn into powers that users avail themselves of. Technology not only creates new possibilities: it creates new powers. In this sense, the (social and political) impact of technology consists in what its implementation alters the distribution of powers that exist in a democracy. This is the reason why, most of the times, political-public discourse directed against, or in favor of, a given technology is, in reality, concerned and troubled with the redistribution of powers that such technology has enabled[68].

Therefore, the implementation, development and social acceptance of a technology is not only politically guided by the representation of determined ends to pursue or needs to meet. They are also explained and backed by the existing competitions between interests and powers that run across and affect a society. In its turn, the endorsed technology is able to spur new competitions or even conflicts as a result of the rearrangement of powers it enables. For that reason, the issue at stake is not so much what social structure a new technology determines; it is rather who are the *social groups* or *individuals* that such a technology has

[65] See again Wellman et al. (note 6) and Kallinikos (note 6).
[66] Benkler (note 1).
[67] Benkler (note 1).
[68] Massimo Durante, Il futuro del web: etica, diritto, decentramento. Dalla sussidiarietà digitale all'economia dell'informazione in rete, Giappichelli, Torino, 2007.

been able to empower. Furthermore, such empowerment is notably related to the structure of *desires* that characterizes a social group or individuals.

Desire is crucial to politics since it is the measure of our perceived inequalities. According to the theory of mimetic desire[69], our desires do not stem from scratch: we do not simply desire to be *this* or *that* or to have *this* or *that*. On the contrary, we desire what others own: in this sense, our desires are the expression of the inequalities that exist in a society among persons that perceive each other as similar (i.e. comparable). Hence, to be more precise, we desire to have what the others *similar to us* own.

This means that social groups or individuals are likely to harness the technological affordances that enable them to meet their desires and thus to reduce the inequalities that exist within a society or between societies: in this sense, technological evolution may have a democratizing effect in society, if equality is meant to be the virtue of democracy[70]. This has been the case in the wave of upheavals in the Mediterranean countries, where "electronic communication technologies" did not only enable people to communicate, to form public opinion and to express their freedom; they also enabled people to perceive themselves, at the same time, as similar to western digital natives by making use of ICTs, and different to them as regards to the development and granting of democracy in their societies. In this sense, electronic communication technologies have been decisive to make people (and youth in particular) to desire to have what other people *similar to them* already enjoy.

Needless to say that a technology could be endorsed and implemented for the very opposite reason, that is, in order to deepen the inequalities that exist between individuals, social groups or even societies at large. In that case, it is harder to speak of a democratizing effect of technology, which however can turn into an economic, political or social improvement of some individuals, social groups or societies. In sum, as far as technological possibilities are implemented and transformed into power, technology is able to lessen or deepen the inequalities existing in a society or between them. In this sense, once again, technological affordances do not dictate people's behaviors, but they do configure the environment in a way that shapes their engagement in lessening or deepening existing inequalities.

In the next and last paragraph, we will stress this basic idea from the epistemological standpoint we have started with: e-democracy as the frame of the networked public discourse,

[69] Renée Girard, Mensonge romantique et vérité romanesque, Grasset, Paris, 1961.
[70] Ronald Dworkin, Sovereign Virtue: the Theory and Practice of Equality, Harvard University Press, Harvard, Mass, 2002.

that is, how electronic communication technologies give shape to the whole informational environment (which in the long term will erase the distinction between analogue and digital space) in the epistemic terms of constraints and affordances. As already remarked, democracy as well as e-democracy have an epistemic foundation, whose epistemology should be understood according to a principle of complementarity[71].

V. The integrated public sphere: complementarity between traditional and electronic media

In a world based on a realistic, traditional ontology (where our beliefs and opinions are ultimately based on the existence of material objects) traditional media used to play the role of instruments of information, disinformation and misinformation, which all presuppose a confrontation between the content of information and the world. In a world ever more based on a digital, virtual ontology (where our beliefs and opinions are mainly based on the consistence of information: we do assist to a certain liquefaction of the world, in favor of *biographies*, that are the privileged subject of media narration), traditional media tend to play the role of instruments of pressure and concentration of attention.

This tendency is backed by the role of electronic media to such an extent that they cooperate in the virtual rendition of the world. However, it is also contrasted by electronic media to such an extent that their conceptual matrix (the set of their constraining affordances) differs from that of traditional media: this has entailed, as already pointed out, both an extension of what counts as relevant political information and an extension of the class of those who count as political interlocutors (individuals, bloggers, online journalists, wikileakers, etc.).

We are thus confronted with a multi-system construction of the networked public sphere, where actors tend to be respondent and accountable for the formation of public opinion within the limits set by the constraining affordances characterizing the conceptual matrix of the information space and the model of communication they belong to. It is important to remind that the protection of free press and, more generally, of public opinion formation is correlative *firstly* to public interest and *secondly* to responsibility.

It is apparent that professional journalists are sensitive to public interest and responsibility in a way that is different from that of online journalists. This difference, as we have tried to argue so far, does not only depend on the organizational structure to which (either professional or online) journalists belong but also on the constraining affordances of

[71] Ceruti (note 21).

the conceptual matrix to which they are respondent. Furthermore, we have also to mention that diverse outlets of communication (traditional or electronic) are exposed in a different way and to a different extent to political attacks or pressures, to social or economical conditionings (which are often unreviewable by a Court, since brought about by actors who are not themselves subject to constitutional constraints[72]): new media seem to be more vulnerable to attacks, than traditional media, to the extent to which they are subject to the action of an extralegal public-private partnership that challenges the robustness and resilience of the networked information space. Hence, new media have to be protected by including them more and more within the e-democratic frame of the (legitimated) formation of political-public discourse.

In this perspective, which has to be understood according to the principle of complementarity, it is systematically in society's interest to protect "the integrity of the newsgathering process, and in ensuring the free flow of information to the public"[73]. This systemic interest grows out of the recognition that the public sphere is now constructed by an assorted set of actors and requires us to recognize that e-democracy needs "multiple layers of checks and balances"[74] and "a new model of cooperation"[75] between traditional and electronic media. A mutual interaction between different types of media (that is, between different observer's viewpoints) can make us to better understand how different viewpoints produce themselves reciprocally and it can make different types of media to better deal with the limits (constraints) and the opportunities (affordances) of their conceptual matrix.

In this perspective, Yochai Benkler, dealing with the question of Wikileaks[76], seems to endorse the epistemic idea of complementarity as a guidance principle for elaborating a model of partnership (that encompasses cooperation, concurrence and also antagonism) between traditional and electronic media. According to Benkler, on the one hand, traditional media, that are at present increasingly challenged in their identity and role, can harness electronic outlets of communication: (a) by integrating distributed informational inputs in their own model; (b) by extending their platform through the use of networked channels of communication. On the other hand, electronic media, which are at present increasingly confronted with the issue of the quality of information (i.e. relevance and reliability) and of the responsibility for public disclosure, can harness traditional media, in order: (a) to better

[72] Benkler (note 50) at 12.
[73] Benkler (note 50) at 39, quoting the *In re Madden* doctrine.
[74] Benkler (note 50) at 63.
[75] Benkler (note 50) at 66, citing the *Guardian*.
[76] Benkler (note 50) at 63-64.

ensure responsible disclosure and private confidentiality; (b) to better achieve salience and attention from the networked publics[77].

In conclusion, a principle of complementarity should be endorsed as the epistemological foundation of e-democracy conceived as the frame of the political-public discourse, if we really want to avoid the crucial risk that Yochai Benkler well summarizes as follows:

> The risk is that the government will support its preferred media models, and that the incumbent mass media players will, in turn, vilify and denigrate the newer models in ways that make them more vulnerable to attack and shore up the privileged position of those incumbents in their role as a more reliable ally-watchdog. This threat is particularly worrisome because it comes as the economics of incumbent media force us to look for new and creative networked structures to fill the vacuum left by the industrial decline of midtwentieth century media models.[78]

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[77] Benkler (note 50) at 63.
[78] Benkler (note 50) at 63.

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The Normativity of Code as Law: Towards Input Legitimacy

Abstract: In the debate on how the new information and communication technologies impact on democratic politics the role played by the digital architecture seems to be surprisingly underrated. In particular, while a lot of attention has been paid to the possibilities that new technologies open up to democratic theory, few works have attempted to look at how democracy may help in shaping technologies. By adopting as a starting point the approach known as 'code as law', the paper aims at two objectives: to re-affirm the importance of discussing normative principles to guide the process of code writing in order to reinvigorate the debate; to claim the importance of input reasons when deciding which principles should be chosen. After having remarked that code is relevant for establishing democratic norms, the paper briefly tackles with the main attempts by European scholars to deal with this issue. Then, a couple of practical examples of how code impacts on democratic rights are sketched out. In the last section of the paper a shift from an output-based approach to the legitimacy of code to an input-based is openly advocated: an inquiry into the legitimacy of code should focus on its production.

Keywords: *Code as Law, Normative Principles, Electronic Democracy, Input Reasons*

I. The Importance of Code for Democratic Politics

It is quite striking to remark, in the debate on electronic democracy, electronic government and more generally on democracy in the digital age, the relative little attention paid to the *normative* role played by the technological environment.[1] As if this aspect were taken as a given, a natural setting within which communication takes place, the role of architectural technology is rarely mentioned and explored in full depth in the research on democratic politics in the digital age.[2] To this assumption it must be added that electronic democracy is usually presented as an aspect of e-government, as if governmental agencies may simply digitalize political initiatives that once were only possible in the 'physical world'.[3] In this

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[1] See, for an outstanding exception, Yochai Benkler, *The Wealth of Networks*, New Haven, 2006.

[2] Matthew Hindman, *The Myth of Digital Democracy*, Princeton, 2009, 15-16.

[3] Thierry Vedel, The Idea of Electronic Democracy: Origins, Visions, and Questions, *Parliamentary Affairs* 59 (2006), 229.

way, the setting of the technological environment is usually not contested and the debate seems to take for granted a starting point that is everything but firm and stable.[4]

On the contrary, an analysis of how democracy works in a digital environment cannot exempt itself from undertaking a critique of the architecture within which political action takes place and of the (economic, legal and social) forces that shape it. The claim here is not that nobody has looked at how digital architecture is shaped, even though this aspect has always represented a secondary interest at best. The debate has focused mainly on the contents which are passing through the digital environment and on how the Internet in particular affects democratic life.[5] But few scholars have taken up the question of which kind of normative principles *ought* to be taken as yardstick against which judging specific codes. More precisely, it is important to look not only at how new technologies shape democratic politics, but also how democratic action can shape the same technologies. This topic becomes even more salient if one bears in mind that regulation embedded in technology, even if adopted in the most transparent way, tends to become blurred with the passing of time and no longer recognized for what it once was: a normative rule that intentionally impacts upon people's behaviour. As it will be explained below, default settings seem to have a legitimating effect because apparently the default is 'normal' to the eyes of the users.[6]

This apparent scarcity of reflection, more visible in the European debate, looks even more striking when one bears in mind that during the second half of the Nineties, a generation of cyber-scholars established the approach known as 'Code as Law' as the main point of reference. Briefly, the main contention was that contrary to the idea that the Internet is beyond the reach of regulation, as believed by the first generation of digital libertarian scholars[7] cyberspace had begun to develop its own control mechanisms in the form of code (as distinct from traditional mechanisms tied to the State). In this context, software and hardware tend to regulate themselves. This interpretation has culminated in the bold claim that – somehow – 'code is law'. The recognition of the importance of code in regulating new technologies was mainly due to the seminal works, among others, of Lawrence Lessig[8] and Joel Reidenberg.[9] Faced with the problem of how to regulate cyberspace, and more generally the networks of global connection, legal scholars were convinced that the best solution could be internal and

[4] Scott Wright, Electrifying Democracy?, *Parliamentary Affairs* 59 (2006), 237.
[5] Cass Sunstein, *Republic.com 2.0*, Princeton, 2009.
[6] Roger Brownsword, Code, Control and Choice: Why West Is West and East Is East, *Legal Studies* 21 (2005) 4.
[7] According to this perspective, the Internet is autonomous and impossible to regulate from the outside: see David Post & David Johnson, Law and Borders – The Rise of Law in Cyberspace, *Stanford Law Review*, 45 (1996), 1367-1402.
[8] Lawrence Lessig, *Code and Other Laws of Cyberspace*, New York, 1999.
[9] Joel Reidenberg, Lex Informatica: The Formulation of Information Policy Rules through Technology, *Texas Law Review* 76 (1998) 553-584.

not external to the technology adopted. As a consequence of that, a dispute ensued about the real novelty brought by ICT law, and in particular by Internet law, which was well captured by the debate between the American judge Frank Easterbrook[10] and Lessig,[11] with the reference to the so-called "Law of the Horse".[12] In other terms, Lessig and Reidenberg, *contra* Easterbrook, remarked that the best way to cope with the problem of a powerful technology was to use the same means as a counterbalance. If code could be used to intentionally regulate human behaviour, then why not using it for good purposes? Of course, as Lessig argued, the recognition of this state of affairs posed a specific normative problem: "if code is a lawmaker, then it should embrace the values of a particular kind of lawmaking".[13] The idea that code is 'really' law is still a divisive one, and it should be noted, a growingly controversial one, up to the point where an influential commentator can remark that code is all about 'interest group behaviour', that is to say, code is designed as an alternative to lobbying.[14] Probably, this mild but increasing skepticism on the regulatory force of code has partially hampered the flourishing of a debate on the normative criteria for assessing code as a lawmaking procedure, which still remains rather underdeveloped.[15] Yet, even those who contest the idea that code is literally like law still recognize its regulatory impact, as, for example, a cautious author like Wagner does: "that technology has regulatory impact does not suggest that it is directly interchangeable with law, and it is easy to understand how the regulatory mechanisms differ".[16] This paper tries to deal with the normative implications of this regulatory power by analyzing the few works which have explored this question. In order to show the limits that a partially unaware acceptance of code as a *quasi*-natural given imposes on democratic rights, some problems concerning freedom of speech and filtering on the Internet will be outlined. The importance of introducing normative principles for regulating code does not commit to the view that "code-based change at various levels of the Internet architecture has emerged as potentially the most powerful regulatory strategy available".[17] Nonetheless, these examples should strengthen the opportunity of reflecting on the normative criteria which should guide our judgments on code.

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[10] Frank Easterbrook, Cyberspace and the Law of the Horse, *University of Chicago Legal Forum* 16 (1996), 207.
[11] Lawrence Lessig, The Law of the Horse: What Cyberlaw Might Teach, *Harvard Law Review* 113 (1999), 501-549.
[12] The dispute may be summed up in the following way: Easterbrook accused Lessig of having invented a new branch of the law out of nothing, since speaking of cyberlaw was the same as speaking of the law of the horse. Everything could be easily regulated by already existing fields of law.
[13] Lessig (note 8) 221.
[14] Timothy Wu, When Code Isn't Law, *Virginia Law Review* 89 (2003), 682.
[15] For an exception see Egbert Dommering & Lodewijk Asscher (eds), *Coding Regulation*, the Hague, 2006.
[16] Polk Wagner, On Software Regulation, *Southern California Law Review* 78 (2005), 458.
[17] Stephan Biegel, *Beyond Our Control? Confronting the Limits of Our Legal System in the Age of Cyberspace*, Boston, 2001, 362.

Finally, in the last section, given the attention paid by the relevant literature on outcome reasons, this paper argues that it is appropriate to put more emphasis on input and procedural reasons. The way code is shaped, and how users and activists can intervene on it and on the content that through it is shaped and distributed, should be seen as extremely relevant from a normative point of view. This will not make all the (ethical and legal) issues that developers and Internet users have to face quickly fade away, but it may help in re-orientating the current trend from normative arguments based on distribution to the centrality of production.

But before moving on, it is necessary to introduce a couple of clarifications. First, by code, this paper denotes software and part of the hardware that function as a set of normative rules. This normative function is common to technology understood in its widest sense, but since the focus here is on information and communication technologies, code appears to be a more accurate term.[18] Moreover, following a division presented by, among others, Yochai Benkler,[19] code comprises some of the layers that constitute the Internet. More specifically, he distinguishes among three layers: Content, Code, and Physical. The content layer comprises: speech, text, images, movies and every other content made available and disseminated on the Internet by its users. This content is transmitted over an infrastructure of computers and the wires that link them together. This is the physical layer. In the middle of these two layers there is the code layer. It consists of the different protocols that form its core architecture and the software upon which they run.

Second, code as law will be understood in its most inclusive way. In this context, a *lato sensu* reading of code implies to take into account the following two dimensions: on the one side, code can be a norm-enforcing technology, as it has been outlined several times in the debate; on the other side, code can be also a norm-establishing technology as well. The recognition of these two aspects of code makes a reflection on normative principles extremely relevant.

II. Code and Rules

For a legal theorist, one of the most interesting aspects of code is the intentional feature of its regulatory impact. This makes it somehow close to certain features of the law as understood in the classic positivist tradition from Austin to Kelsen, even though code cannot be equated to a command backed with sanction. Nonetheless, architectural regulation raises normative issues because of some of its operational aspects. We should not forget that code sets certain

[18] To avoid too many repetitions, I will use 'architectural regulation' as a synonym of code as law.
[19] Yochai Benkler, From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access, *Federal Comm. Law Journal* 52 (2000) 562-563.

features which represent the framework within which action takes place: most importantly, they are features selected by code writers; they constrain some behaviour (for example, electronic eavesdropping) by making other behavior possible (for example, encryption). They embed certain values, or on the other side they exclude them.[20] Under certain aspects, code works as constitutive rules do.[21]

Besides, code is being used more and more as law for regulating human behaviour. Both Lessig and Reidenberg have provided examples of how rules are embedded in code. Reidenberg, in particular, made it clear that choice of design in systems impose rules on participants: the creation and implementation of information policy are embedded in network designs and standards as well as in system configurations. Traditional rule-making appears to be extremely different from architectural regulation: "in the context of information flows on networks, the technical solutions begin to illustrate that network technology itself imposes rules for the access to and use of information".[22] Other authors have stated clearly in which sense code is made of rules:

> in terms of optimal lawmaking analysis, technological standards are closely related to legal rules. For example, both substantive rules and technological standards influence user behaviour directly. As technological standards' influence on behaviour increases, they will increase in similarity to legal rules. Rules are best promulgated by centralized institutions, particularly public, governmental institutions … Moreover, the task of formal political institutions should be to confirm the legitimacy of choices made by de facto standard setters by ensuring that all interested parties are involved and by exercising an appropriate control structure over decentralized standard setting.[23]

To cut a long story short, code as law is normative in the sense that it regulates and guides human behaviour. This is the specific aspect of code as law with which this paper deals.

As reminded by Ludwig Asscher,[24] there are several cases where code is used for self-regulation. First, code is used to enable the enforcement of rights. Code is a potentially perfect tool of enforcement. If technology completely prevents one from copying a book, a copyright infringement becomes very difficult. Second, if technology blocks the access to certain prohibited information, the distribution of that information has been stopped much more efficiently than if a judge would have declared that piece of information to be unlawful. Code

[20] Lessig (note 8) 202.
[21] See John Searle, *The Construction of Social Reality*, New York, 1995.
[22] Reidenberg (note 9) 568.
[23] Daniel Benoliel, Technological Standards, INC: Rethinking Cyberspace Regulatory Epistemology, *California Law Review* 92 (2004), 1116.
[24] Lodewijk Asscher, 'Code' as Law. Using Fuller to Assess Code Rules, in: Dommering & Asscher (note 15), 70.

can also be used as a tool for self-regulation. Architectural regulation shapes the relationship between private parties with no need for government to step in. Finally, code may in different ways be replacing the traditional balancing of interests: if code is replacing the role of a judge when considering limitations to a particular right, then it is replacing the enforcement of that right.

A key difference between code and law, however, pertains to the kind of rules that belong to these two regulative tools. To take into account this difference may caution against an enthusiastic embrace of this modality of regulation because while legal norms determine how people *should* behave, leaving them the possibility to chose whether to comply or not, code, particularly in its norm-establishing version, determines how people *can* behave. By remarking that code is an efficient means of regulation, Lessig also noted that its perfection can make it into something more controversial: "One obeys these laws as code not because one should; one obeys these laws as code because one can do nothing else. There is no choice about whether to yield to the demand for a password: one complies if one wants to enter the system".[25] In a nutshell: Compared to legal norms, code can become a much more pervasive, yet not always visible, mean of control. The case of privacy is quite telling of how code has already upset the traditional regulatory balance by threatening the protection of this value beyond the control of courts and parliaments.[26]

Often the very features of code that make it a viable (and attractive) alternative to legal regulation can have troubling effects, at least as compared to legal regulation. From a democratic point of view, the public dimension of lawmaking is deemed to be valuable and necessary. In a recent essay, Jeremy Waldron has proposed an attractive definition of this aspect of lawmaking in terms of "the way law presents itself as a body of rules dealing with matters that are appropriately matters of public concern and dealing with them in a way that can stand in the name of public".[27] If the public aspect of lawmaking is recognised and taken into account, then the role of code writing needs to be put under a different light. Of course, one may object that legal rules not always are clear and that lawmaking procedures often take place behind curtains, in the realm of lobbying and interest bargaining. However, most of the times, the outcome is public and visible, and even though not all citizens may be aware of the existence of a legal rule, they may easily retrieve it.[28] Rules also need some minimal level of

[25] Lawrence Lessig, The Zone of Cyberspace, *Stanford Law Review* 48 (1996), 1408.
[26] Cf Bert-Jaap Koops & Ronald Leenes, Code and the Slow Erosion of Privacy, *Michigan Telecommunication & Technology Law Review* 12 (2005), 115-188.
[27] Jeremy Waldron, Can There Be a Democratic Jurisprudence?, *Emory Law Journal* 58 (2009), 700.
[28] Lee Tien, Architectural Regulation and the Evolution of Social norms, *Yale Journal of Law and Technology* 4 (2003), 8-10.

enforcement and this is normally a human and complex activity. Non-compliance with rules, in order to be meaningful, must be detectable by the appropriate agency. The actors involved in this operation usually possess discretion and exercise judgment on their reasons for action. This is part and parcel of the social organization of the law and public processes of enforcement are instrumental to it.[29]

Code functions in another way. As famously argued by Walter Benjamin about the fruition of architecture (for whom buildings are appropriated in a twofold manner: "by use and by perception"),[30] people simply find themselves in an architectural environment. The element of consent or choice tends to disappear within code. One cannot often say that one chooses to obey to the rules of code. One of the most recurrent discussions in legal theory is about the question of whether there is or ought to be an obligation to obey the law, and which kind of aspect of the law (its content or its sources) makes legitimate its authority.[31] In fact, code may not leave any possibility of choice. Once entered into the architecture, an agent cannot choose whether to obey a rule or not. Besides, code can provide for perfect enforcement, leaving no room for breaking (or disobeying) a normative rule. Finally, rules established by code have often a blurred pedigree and from the enforcement perspective, architectural regulation bypasses many of the possibilities for human actors to modulate the effects or meaning of a rule in the enforcement process, which is, instead, delegated to technological settings. To these considerations, it must be added that even the rules and the institutions which govern the Internet are not immune from the same kind of criticism. For example, the development of Internet Corporation for Assigned Names and Numbers (ICANN) has been subject to severe criticism, both of its institutional design and its actual workings.[32] These considerations stress the lack of any public process over norm-establishing and norm-enforcing through code. These controversial aspects also remind of the need of looking for normative criteria for assessing code as law.

Even though these features of code as lawmaker are recognized by scholars, a certain initial enthusiasm was common among many of them for what concerns the capacity of code to shape the environment. Digital libertarians, in particular, firmly believed in the impossibility and undesirability of traditional law to shape code. This initial interest in the emancipatory force of code seems to have left the place to a more alarming and critical

[29] Ibid. 10.
[30] Quoted by Neil Katyal, Architecture as Crime Control, *Yale Law Journal* 111 (2002), 1072.
[31] For opposite takes on this issue see Joseph Raz, *The Authority of Law* (1979), Oxford, 2009; John Finnis, *Natural Law and Natural Rights* (1980), Oxford, 2011.
[32] See the devastating critique of Milton Mueller, *Ruling the Root. Internet Governance and the Taming of Cyberspace*, Cambridge Mass, 2002; cf Michael Froomkin, Habermas@discourse.net: Toward a Critical theory of Cyberspace, *Harvard Law Review* 116 (2003), 751-872.

analysis. Once certain problematic features of code are taken into account, the demands for normative principles cannot be eluded any longer.

III. The Narrative of Code as Law: From a Descriptive to a Normative Approach

With the exception of those who did not believe the Internet would represent anything substantially new, a lot has been written about the liberating virtues of code as law, in particular against a formal legal positivist approach and a State-based understanding of the sources of law. Legal pluralists, for example, have seen in the raise of code an enriching factor for the legal world and an increase in freedom.[33] Bypassing the State as the centralized machine for lawmaking looked as a great chance to consolidate and augment individual freedom to their eyes. Yet, in the last ten years a growing skepticism can be detected and this represents another important factor in favour of adopting normative criteria.

As noted, the first pioneering cyberlaw authors did not pay too much attention to the normative dimension of code. According to Lessig, the most prominent among these authors, regulating new technologies is a difficult task, which demands to look at a multiplicity of modalities. For him, the key is to balance among the different types of regulatory modes. Which are these potential regulatory modes? Lessig lists four:[34] the law, the market, social norms and the architecture (or code). There is no regulation in general, but only specific modes of regulation and each constrains differently: the legal, the economic, the social and the technological modes, which are respectively denominated as law, norms, market, and architecture. For Lessig, regulating new technologies implies a right and balanced mix among these four factors. This is what Lessig calls "the optimal mix". A good illustrative example of how a mix may work is provided by Lessig himself by explaining the regulation of seat belts:

> The government may want citizens to wear seatbelts more often. It could pass a law to require the wearing of seatbelts (law regulating behavior directly). Or it could fund public education campaigns to create a stigma against those who do not wear seatbelts (law regulating social norms as a means to regulating behaviours). Or it could subsidize insurance companies to offer reduced rates to seatbelt wearers (law regulating the market as a way of regulating behaviour). Finally, the law could mandate automatic seatbelts, or ignition-locking systems (changing the code of the automobile as a means of regulating belting behaviour). Each action might be said to have some effect on seatbelt use: each has some cost. The question for the government is how to get the most seatbelt use of the least cost.[35]

Overall, the optimality requirement depends and varies according to its object.

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[33] Paul Schiff Berman, Global Legal Pluralism, *Southern California Law Review* 80 (2007), 1155-1237.
[34] Lessig (note 8), 235-239.
[35] Ibid., 93-94.

Lessig's suggestion is "that we have to understand how the different modalities regulate and how they are subject, in an important sense, to law, then we will see how liberty is constructed not simply through the limits we place on law. Rather, liberty is constructed by structures that preserve a space for individual choice, however that choice may be constrained".[36] From this point of view, law becomes a meta-regulator, which means, in this case, that it adjudicates how other regulatory means have to be employed.

Yet, Lessig does not treat the question of which normative principles should guide the regulatory activity, with the exception of some passages and a reference to the importance of individual choice, here understood as the possibility of leaving open certain options in the digital architecture to the user. This lack of reflection comes at a price. In fact, as Lessig himself points out, indirect control can be used astutely by the government, and one must add, also by private actors. The example of access to the public beaches on Long Island is a good one. If regulators declare openly and directly that African Americans are not allowed to use the beaches, the regulatory position and its objectives are perfectly visible and transparent. If, instead, regulators pursue the same objective indirectly by constructing narrow bridges or the like, then it might be much less clear what is going on and it would become more difficult to have a public debate (and possibly a conflict) on the issue.[37]

Joel Reidenberg's move from a descriptive to a more critical stance towards code is quite indicative of a change of perspective in the literature on code as law. In his influential article on 'Lex Informatica' (shaped after the *Lex Mercatoria*), he did take a neutral stance toward the possible conflict between institutional law and code as law (*lex informatica*, indeed). He simply remarked how *lex informatica* could provide several effective tools for legal regulation. He, like Lessig, has not systematically articulated criteria for the acceptability of *lex informatica*, but some of them can be inferred from his work. In fact, during the last decade, Reidenberg has moved toward an increasingly cautious perspective on *lex informatica* and he has started to advocate a more active role for traditional law. For this reason, he tends to stress the importance of political control: "because technical designs and choices are made by technologists, government policymakers should play an important role as public policy advocates promoting policy objectives".[38] Reidenberg provides two criteria that should guide the regulation of code: legal authority and proportionality. For what concerns the first, "as a threshold matter, states must have a legal process in place to authorize the use and choice of technological enforcement tools', while for the second, he believes that 'the basic

[36] Ibid., 345.
[37] Lessig (note 11), 541-543.
[38] Reidenberg (note 9), 580.

principle … should be that a state only use the least intrusive means to accomplish the rule enforcement".[39] In the balance, the second principle seems to give to *lex informatica* a major role in the realm of regulation.

While many American scholars seemed to have identified in the emergence of code a huge potential for more freedom and creativity,[40] Europeans have adopted from the very beginning a much more cautious approach. Here, we will mention three European authors – to our knowledge, the only ones[41] – who have tried to propose normative criteria for evaluating code as law.

The first one is also the most cautious. Roger Brownsword, in his discussion of 'techno-regulation' (his term for architectural regulation) accepts Lessig's classification of the regulatory modalities, but believes that there is an unavoidable conflict between the modalities coming from the law and the society (East Coast code) and the technological forces of code (what he calls West Coast code) because of the pressure coming from the latter to self-regulate themselves. By presenting the issue in this way, Brownsword has already paved the way to the primacy of institutional law. He basically proposes two criteria for regulatory intervention: effectiveness and legitimacy. The latter seems to be equal to respect of human rights and human dignity. More precisely, he seems to regard human rights and human dignity as co-essential. Or, to put it in a concise way, he considers human dignity as empowerment (as opposed to dignity as a constraint) to be realized through human rights. A critical consequence of this view of the centrality of human rights is that human beings should have a choice: the autonomy that underpins human rights "implies the provision of a context offering more rather than fewer options".[42] The point of Brownsword's critique of code as law lies here: it is constitutive of human dignity not only that right choices are made, but also

[39] Joel Reidenberg, States and Internet Enforcement, *University of Ottawa Law & Technology Journal* 1 (2004), 229.

[40] This attitude has been aptly summed up by James Boyle, Foucault in Cyberspace: Surveillance, Sovereignty and Hardwired Censors, *University of Cincinnati Law Review* 66 (1997), 205: "The attraction of technical solutions is that they apparently elide the question of power – both private and public – in the first place. The technology appears to be 'just the way things are'; its origins are concealed […] Above all, technical solutions are less contentious; we think of a legal regime as coercing, and a technological regime as merely shaping […] our choices".

[41] It is worth mentioning the work of Luciano Floridi on information ethics, even though his proposal is based on philosophy of information and does not put moral agency at its centre. Therefore, his moral principles concern mainly entropy: "entropy ought not to be caused in the infosphere (null law); 1) Entropy ought to be prevented in the infosphere; 2) Entropy ought to be removed from the infosphere; 3) Information welfare ought to be promoted by extending (information quantity), improving (information quality), and enriching (information variety) the infosphere": Luciano Floridi, Information Ethics: On the Philosophical Foundation of Computer Ethics, *Ethics and Information Technology* 1 (1999), 47.

[42] Roger Brownsword, What the World Needs Now: Techno-Regulation, Human Rights and Human Dignity, in: *Human Rights*, ed. R. Brownsword, 2004, 218.

that wrong choices can be made. As a result, Brownsword's key criterion for assessing compliance-proof architectural regulation is freedom of choice.[43]

Bert-Jaap Koops has produced one of the most articulated lists of normative criteria, at least compared to other attempts at formulating criteria for architectural regulation. He distinguishes between primary and secondary criteria and establishes a hierarchy between them. Primary criteria are mostly substantial and they include human rights (clearly the most important factor in his view), other moral values that a society considers relevant (e.g., autonomy, dignity), and some procedural values, like democratic decision-making and inclusive participation. Secondary criteria include transparency, accountability, and output criteria of the likes of efficiency, flexibility, context-adaptability.[44] To sum up Koops' position, primary criteria should be met before the secondary criteria come into view. Among primary criteria, substantial ones shall prevail over procedural ones. Of course, given the rather abstract and broad criteria advanced by Koops, assessments cannot yield a categorical answer of the kind yes or no, but only a degree-based answer of the kind 'more-or-less'. Be that as it may, the hierarchical order does provide a bottom-line: if core principles are met only to a low extent, then the overall assessment must be negative. In the balance, Koops seem to believe that what counts as primary is the output of code writing. As is the case for Brownsword, Koops adopts a primarily output-oriented approach, where the respect of human rights becomes the key parameter of evaluation. The difference is that according to Koops the scope of the technology in question and of its jurisdiction are also key elements to be taken into account for assessing the acceptability (this is the word that he employs) of a code. If one does not know what the scope of a particular technology is, it is not possible to establish whether the application of that same technology is acceptable in a particular jurisdiction.

Finally, another systematic attempt to offer a set of criteria to assess code has been made by Lodewijk Asscher. After having established that the rules embedded in code cannot be compared to legal rules, he discards positivism as an inapt normative legal theory for code as law and he suggests turning the attention to Lon Fuller's criteria for the legitimacy of law (and to the criteria for freedom of expression sketched out by the European Court of Human Rights). This move leads to a series of questions that, according to him, should guide any assessment of code as law: "1. Can rules be distinguished in the code? 2. Are these rules accessible to the public? 3. Can these rules be reliable, in the sense that they are predictable? 4. Is there an authority that makes the code rules? 5. Is there a choice? Can the citizen choose

[43] Ibid., 230-231.
[44] Bert-Jaap Koops, Criteria for Normative Technology, in: *Regulating Technologies*, ed. R. Bronwsword, 2008, 159.

not to obey the rules? Can they choose another system of code?".[45] Once again, here we see a mix of input (question number 4) and output criteria, but even though the reference to Fuller's inner morality may bring to think at a primarily output-based approach, Asscher reminds us of the importance of democratizing some of the most crucial code writing.[46] This is indeed one of the few remarks in the literature whose attention goes to the *normative* relevance of the production of code. But before proceeding further into this aspect of the legitimacy of code as law, it is necessary to take a brief detour in order to show how particular kinds of code-writing processes impact on certain democratic rights.

IV. Two Examples: Freedom of Speech and Filtering

Freedom of information and freedom of speech are fundamental rights for any theory of democracy. And it is undeniable that architectural regulation influences the flow of information in society. Control of content can be achieved through the regulation of any of the three layers we made reference to in the first section. As remarked by Larry Solum and Chung, efforts to control speech are often realized through regulation in the lower layers of the network system (Code and physical layers, more than content). A discrepancy occurs between the places where targeted speech is conducted and where it is countered. As control is taken from the ends and moved into the architecture, a conflict arises with the notorious end-to-end argument and the principle of layer separation.[47] Regulation of content at the physical layer can lead to a conspicuous blockade of speech (geographically bounded); regulation at the code network layer may block speech from a certain host machine (IP filtering); regulation at the code application layer (URL filtering) is limited to the speech contained in a certain document.[48] Regulation (and control) of information can take place both at the ends of the network or at its *ins* (source and destination ISPs). Information control by service providers may prove to be more feasible than going after a wide variety of individual users. The provider is a node in the Internet chain where the enforcement of law and code regulation can be facilitated in a relative easy way. An ISP may function as a link between the user and the Internet, that is, as a vehicle for packets of data. An ISP may also host its own or other people's content on its server. In both cases, it is possible to limit the flow of

[45] Asscher (note 24), 85.
[46] Ibid., 88.
[47] Lawrence Solum & Minn Chung, The Layers Principle: Internet Architecture and the Law, *University of San Diego School of Law Research Papers*, 2003, 26-27.
[48] Ibid., 65.

information through institutional law (think, for example, at the liability regime) and, crucially for the topic of this paper, through code.[49]

Another relevant example of the importance of code for freedom of information that is exercised at the users' end level is represented by the case of filtering. Control of information from the side of the data flow has been mainly achieved by filtering technologies. This is a technique which may also deeply affect freedom of speech, yet the way it is put into practice through the regulation of the Internet puts certain values of good governance like legitimacy and accountability at risk, without letting users to be aware of how and when they are controlled. Geolocation techniques offer geographic localization by connecting IP addresses to the nationality of a user. This kind of technology facilitates, for example, the adjustment of language per region. But it also supports more personal advertising and the enforcement of local law. The blocking of region specific IP addresses at the network layer could prevent the access to sources.[50] Efforts at streaming the information flow on the basis of localities have not been limited to lawsuits. Google's search engine represents the most known example of a practice of filtering based on a more informal approach. For example, in March 2001 Google removed the links to web pages that contained material that allegedly infringed the copyright of the church of Scientology.[51]

As regards legitimacy, the use of technology to exert control over Internet users frequently challenges tenets associated with the rule of law, concerning both the process for (and content of) norms governing behaviour. These challenges emerge, in particular, where technology is linked to compliance with voluntary codes or soft law instruments by non-state actors. Whilst it may be suggested that the voluntary character of compliance with such instruments reduces or removes the requirements suggested by the rule of law, the consequences of compliance will often accrue to third parties who do not experience compliance as voluntary and in situations where many of the elements of the regime of control are determined by non-state actors outside of the normal public policy process. The combination of automatic enforcement, opaque systems and rules directed at intermediaries may leave affected users unaware that their behaviour is being controlled, so that the opaque nature of filtering may result in a loss of accountability. Where it is not clear what is being

[49] Zittrain notes that the destination ISP has the obvious advantage to be a node located inside the jurisdiction of the state that seeks to regulate certain information or speech. By coining the case of the Pennsylvania Model, Zittrain underlines the importance of the last node in the transmission chain, which provides probably the most effective point of blockage for information flowing from foreign soil. China and Saudi Arabia use the backbone ISPs for countrywide filtering of incoming flow of data: Jonathan Zittrain, Internet Points of Control, *Boston College Law Review* 43 (2003), 655-658.

[50] An (in)famous case in which this technique was claimed to implement a judicial decision is the *Yahoo!* Case.

[51] The case is discussed in Benjamin Edelman & Jonathan Zittrain, Internet Filtering in China, 2003, available at http://cyber.law.harvard.edu/filtering.

blocked, why, or by whom, the operation of mechanisms of accountability – for example: judicial review – is greatly reduced.

V. Input Criteria for Legitimacy

It is time to take stock and, in light of the previous considerations, to take up the question of the normative criteria to be applied in order to assess the legitimacy of code as law. This is done with the aim of reinvigorating a debate on this critical topic.

As a framework for evaluating the legitimacy of code one can refer to the distinction between input and output reasons.[52] Input reasons are those reasons that apply to the procedural aspects of decisions, that is, to how a decision is reached. As a measure for legitimacy, input reasons take into account the fairness of the adopted procedure. Output reasons concern the content of decisions and they represent a moral yardstick for judging the legitimacy of technologies. What counts as legitimate, according to the output-based perspective, is the end result of a decision and its normative content, not how the decision was reached.

Those who have tried to put forward normative criteria for assessing code as law have mainly put the accent on output reasons, with human rights obviously playing a major role. As noted above, Brownsword has stressed the importance of respecting human rights and human dignity for judging the legitimacy of code as law.[53] Koops has affirmed that the best methodology for the acceptability of what he calls 'normative technology', "does not lay [in] procedural justice, in which the criteria would be valid because the right procedure was followed to find them, but rather to *outcome justice*, in which the criteria are valid because the outcome is accepted by the reader as a reasonable one".[54] In a rather typical legalistic and formalist fashion, Koops would also have lawyers testing the set of criteria for normative technology. This sounds as a call for a debate among specialists, in order to build a firmer and more accurate set of criteria. If one takes for granted that lawyers are bearers of a culture of respect for human rights, and in particular for the right to privacy and freedom of speech, then the active involvement of the legal community may make the writing of code more sensitive to these values. Nonetheless, it is far from clear whether this is more than a necessary (but not sufficient) condition to have fair normative criteria respected in the production of code.

Given the nature and the logic of architectural regulation, the emphasis on output

[52] The classic references for this distinction are Fritz Scharpf, *Governing in Europe*, Oxford, 1999; Jeremy Waldron, The Core of the Case Against Judicial Review, 115 *Yale Law Journal* (2006) 1396-441; Richard Bellamy, *Political Constitutionalism*, Cambridge, 2007.
[53] Bronwnsword (note 42), 210.
[54] Koops (note 44), 167.

legitimacy is misplaced for several reasons. First, since technology is often irreversible – once it is developed and applied in society, it is difficult to change it or remove it from society in those applications – the process which develops code as law becomes a key concern when normativity is at stake. In fact, it may well be too late when a particular version of a technology appears or is adopted in a given society to ask whether it is acceptable to keep a certain technology. The difficulty of reversing embedded code is often evident and makes it fundamental to focus on the procedure and the actors involved in the development of the technology. Second, given the opacity of architectural regulation, to be aware of how technology is directly or indirectly impacting upon agents' behaviours may prove to be too difficult in many cases. Last but not least, as mentioned in the first section, the importance of default technology cannot be underestimated. What appears to be default code is often taken as a natural and immutable fact. Of course, default settings entail choice. Nonetheless, the regulatory target of code need not be aware that there has been a decision to constrain or control his actions. On top of that, it is known that users often follow default settings even when they are against their best interest. This is usually explained by making reference to two factors. People do not change defaults because they are uninformed. A default setting is essentially useless if a person does not know about the possibility of changing the option or the ramification of each choice.[55] The second reason why people do not change their setting defaults is because of their lack of technical knowledge. If people cannot figure out how to change settings, they cannot modify it by definition.[56]

For these reasons, input-based legitimacy should become the primary concern in choosing normative criteria. But which kind of input reasons is to be placed at the center of the evaluation of the design process? Given that code is not exactly like law, it is difficult in the realm of code to adopt a kind of rule of law (or 'rule of code') approach. Yet, we have also seen that when a particular code is 'enacted', it may be too late to remedy to the violation of certain rights. This is why the accent should be put on the moment of production, rather than on the moment of distribution. The moment of production should be assessed according to two intertwined principles: one is transparency and publicness. Decisions, in order to be accountable, should be known and also the procedure that brought to that decision should be disclosed. The second principle that should guide the 'writing' of code is equal chance of participation to the process, which also entails the idea that the writing process should be as inclusive as possible.

[55] Rajiv Shah & Jay Kesan, Manipulating the Governance Characteristics of Code, *Info* 5 (2003), 7.
[56] Cass Sunstein, Switching the Default Rule, *N.Y.U.L. Review* 77 (2002), 106-134.

The predictable example of an inclusive and egalitarian participation in the definition of code is the case of F/OSS (Free/Open Source Software) communities, which are considered important agents of democratic participation. Clearly, F/OSS communities should not be romanticized, otherwise one runs the risk of falling into the trap of technological utopianism. For example, the issues of 'forking' and the disagreement between free software advocates and open source developers remind us that the F/OSS communities are everything but a monolithic universe.[57] But the study of these communities reveals that issues of democratic production of code are still central and when approached in an inclusive and open way, it turns out to be also the most fruitful one.[58] At this stage, the argument advanced by Jack Balkin in support of a democratic digital culture should clearly resonate here:

> a 'democratic' culture … means much more than democracy as a form of self-governance. It means democracy as a form of social life in which unjust barriers of rank and privilege are dissolved, and in which ordinary people gain a greater say over the institutions and practices that shape them and their futures. What makes a culture democratic, then, is not democratic governance, but democratic *participation*.[59]

It is time to shift again the discourse from distribution to production and focus on how the digital environment is created. The closest analogy to what is proposed in this paper is to the way commons can be governed,[60] in terms of non-hierarchical participation to its production and preservation.[61]

Finally, two cautionary notes concerning the assessment methodology are in order. First, there is always a gap between a norm promulgated by the legitimate public authority and its translation into a technology. In other words, there is always a difference between 'law in books' and 'law in technology'.[62] In the translation process, choices and reductions take place, and these may not be necessarily made in the most inclusive way by technology developers. Second, the scope of normative criteria cannot be constrained to public institutions. These criteria should also become relevant for technology that is developed where private parties build in norms in order to influence users' behaviour. Code is not only

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[57] Michael Dizon, Free and Open Source Software Communities, Democracy and ICT Law and Policy, *International Journal of Law and Information Technology* 18 (2010), 127.
[58] Ibid., 141.
[59] Jack Balkin, Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society, *N.Y.U.L. Review* 79 (2004), 33. The gist of Balkin's argument is that, in the digital age, the focus of democratic theory and practice should be on participation rather than governance.
[60] Eleanor Ostrom, *Governing the Commons*, Cambridge, 1990.
[61] This does not commit to the view that the Internet as a network is in itself a commons. The contextual approach here advocated would prefer to treat the Internet as a composite good, a mixture of public goods, common pool resources and private goods: Cf Justyna Hofmokol, The Internet Commons: Towards an Eclectic Theoretical Framework, *International Journal of the Commons* 4 (2010), 226-250.
[62] Mireille Hildebrandt & Bert-Jaap Koops, A Vision of Ambient Law, *Fidis* (deliverable), 2007, 22 (available at www.fidis.net/fidis-del).

the *longa manus* of official law, but can also be an instrument of power of the market or of civil society.[63] In light of the emergence during the last decades of de-regulation as a landmark of policy in the private sphere, it is even more urgent to extend the normative criteria (and possibly constitutional safeguards) to the private development of architectural regulation. Moreover, the growth of polycentric governance, where multiple layers of supranational, national and local institutions are combined with non state-actors regulation, makes any sharp distinction between public and private regulation hard to maintain. One can think at cases where the relevance of private regulation is manifest, like, for example, a case of a search engine filtering information that concerns the same company that runs the search engine, or worse, information that shed a bad light on the political forces which are supported by this company. Nonetheless, not every private regulation has to be subjected to the same scrutiny: it will depend on the context.

This last remark brings us to a final consideration. It is quite hard to judge architectural regulation from a general and purely universal perspective. To evaluate the acceptability of architectural regulation as such is extremely complex and it seems not to take into account the great variety in codes that nowadays has become apparent. Furthermore, the assessment of code may vary according to the modification of the technology itself, which impacts upon the interpretation of the criteria overtime. Code may go through several stages and judgments on its legitimacy passed at a certain time may differ radically from the conclusions drawn previously at a later moment. This means, in other words, that it is not promising (actually, it may look Sisyphean) to ask in abstract whether a privacy-friendly identity-management system is a good code. It is also important to determine what are the persons most affected by the code and to establish who might have a say in the design process, which means, moreover, that normative criteria are necessary also in order to identify the relevant groups. Therefore, it is unavoidable to focus on the specific code one wants to assess and to address the affected communities. Context-sensitivity is essential in this case; the application of the normative criteria outlined above implies the interpretation and the weighing of the input-based principles in the concrete instance. This is a challenge and an invitation to develop further and in a more detailed way the normative criteria we want to adopt for a more inclusive and transparent architectural regulation.

The necessity of dealing with this question will become even more urgent because of the emergence of new technologies. As aptly remarked by Mireille Hildebrandt and Bert-Jaap

[63] Dommering & Asscher (note 15), 249-255.

Koops,[64] ambient-intelligence technologies will represent another challenge for the discourse on the legitimacy of ICT media. Ambient intelligence is a kind of technology made of smart environments that continuously make instantaneous decisions on citizens and consumers based on profiles and large collection of personal data. In such an environment, legal norms for the protection and enhancement of the privacy and equality of citizens will be inadequate. 'Ambient law' will be embedded in the ambient intelligence structure and this will pose other serious problems of legitimacy. In particular, choice as a normative principle will be put into question as this kind of technology changes its offers as a reaction to the person with which is communicating. And this represents another strong reason to focus primarily on the production of code rather than on its outputs.

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[64] Mireille Hildebrandt & Bert-Jaap Koops, The Challenges of Ambient Law and the Legal Protection in the Profiling Era, *Modern Law Review* 73 (2010), 428-460.

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Proxy of Democracy?
Metaphors of Connection as Arguments against Representation

Abstract: This paper aims to assess the arguments that claim representative democracy may be enhanced or replaced by an updated electronic version. Focusing on the dimension of elections and electioneering as the core mechanism of representative democracy I will discuss: (1) the proximity argument used to claim the necessity of filling the gap between decision-makers and stakeholders; (2) the transparency argument, which claims to remove obstacles to the publicity of power; (3) the bottom-up argument, which calls for a new form of legitimacy that goes beyond classical mediation of parties or unions; (4) the public sphere argument, referred to the problem of hierarchical relation between voters and their representatives; (5) the disintermediation argument, used to describe the (supposed) new form of democracy following the massive use of ICTs. The first way of conceptualizing e-democracy as different from mainstream 20th century representative democracy regimes is to imagine it as a new form direct democracy: this conception is often underlying contemporary studies of e-voting. To avoid some of the ingenuousness of this conception of e-democracy, we should take a step back and consider a broader range of issues than mere gerrymandering around the electoral moment. Therefore I shall problematize the abovementioned approach by analyzing a wider range of problems connected to election and electioneering in their relation with ICTs.
Keywords: Democracy, the Internet, Net, Disintermediation, Election

> *Tout annonce, tout prouve, un système d'insubordination raisonnée, et le mépris des lois de l'Etat. Tous auteur s'érige en législateur.*
>
> *Mémoire des princes de son sang*, 12 décembre 1788

> *The internet is a magnet for many metaphors. It is cyberspace or the matrix, the "information superhighway" or infobahn or information hairball, a looking-glass its users step through to meet others, a cosmopolitan city with tony and shady neighbourhoods, a web that can withstand nuclear attack, electric Gaia or God, The World Wide Wait, connective tissue knitting us into a group mind, an organism or "vivisystem", a petri dish for viruses, high seas for informationpirates, a battleground for a war between encrypters and decrypters, eye candy for discreet consumers of a tsunami of pornography, a haven for vilified minorities […] and on and on.*
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> *Wesley Cooper* [1]

[1] W. Cooper, Internet Culture, in: *The Blackwell Guide to the Philosophy of Computing and Information,* ed. L. Floridi, Blackwell, Maldem 2004, 92.

I. Political metaphors from *mechanical* to *electronical* democracy

In 1861 the Scottish physicist James Clerk Maxwell published his electromagnetic field theory. Electronic physics took a first step beyond yet without refusing classical mechanics: an object in motion *continued to* stay in motion unless a force was applied against it but introducing electronics, science was about to change. According to several social scientists, the advent of *information and communication technologies* (ICTs) made a similar revolution occur in politics: the *World Wide Web* could be an instrument to overcome some political limits of classic theories of democracy, such as the crisis of the party system and of political communities, the lack of deliberation opportunities or it could help increasing transparency of decision-making.

20th century theories of representative democracy[2] focused on the procedural elements characterizing this form of government: electoral procedures to selected representatives, strong and strictly regulated institutions and a formalized bureaucracy, checks and balances to guarantee separation of powers, party system mediation for aggregating consensus… In other words, representative democracy has been tackled as if it was "mechanical", following the modern metaphor – from Descartes and Hobbes – which describes political organizations as big mechanisms, as for example a clock:

> As in a watch, or some such small engine, the matter, figure, and motion of the wheeles, cannot well be known, except it be taken in sunder, and viewed in parts; so to make a more curious search into the rights of States, and duties of Subjects, it is necessary, (I say not to take them in sunder, but yet that) they be so considered, as if they were dissolved, (i.e.) that wee rightly understand what the quality of humane nature is, in what matters it is, in what not fit to make up a civill government, and how men must be agreed among themselves, that intend to grow up into a well-grounded State.[3]

21st century theories focusing on e-democracy, as political practices enhancing or replacing representative democracy through the use of ICT, mostly represent it with the metaphor of the brain.[4] The diffusion of the Internet created a decentred and distributed system different from "mechanical democracy", possible only with all gears in place: "When it comes to brain functioning it seems that there is no centre or point of control. The brain

[2] H. Kelsen, On the essence and value of democracy (1929), in: *Weimar. A Jurisprudence of Crisis*, eds. A. Jacobson, B. Schlink, University of California Press, Berkley 2000; J. Schumpeter, *Capitalism, Socialism and Democracy* (1942), Routledge, London 2010; R.A. Dahl, *A Preface to Democratic Theory*, Chicago University Press, Chicago 1956; N. Bobbio, What Alternatives Are There to Representative Democracy?, in: *Which Socialism? Marxism, Socialism and Democracy*, Polity, Cambridge 1988; G. Sartori, *The Theory of Democracy Revisited*, Chatham House, Chatham (NJ) 1987.
[3] Th. Hobbes, *De Cive* (1642), Clarendon, Oxford 1983, 32.
[4] P. Flichy, *The Internet* Imaginaire (2001), MIT Press, Cambridge 2007.

seems to store and process data in many parts simultaneously".[5] The brain is different from the clock because it is an adaptive form of organisation where "pattern and order *emerge from the process*; it is not imposed".[6]

The brain image seems to recall the living organism metaphors, typical of ancient political thought: such metaphors hinged on the natural and not artificial dimension, based on the logical priority of the whole (i.e. society) over its parts (i.e. individuals). However, the lack of a "regulative centre" distinguishes the brain from classical "organic" conceptions of the political, characterized by the image of the head leading the body.

The Internet is considered as an interconnected adaptive form of organization that will revolutionize traditional democratic forms of government. It is not a coincidence that the image of the net has become fashionable today among political scientists to describe politics. This might be considered as a transposition of the metaphor of the brain from the philosophical to the political realm. Starting from governance studies, François Ost and Michel van de Kerchove described today's politics and law as they are moving "from pyramids to nets".[7] This new way of describing human coexistence associates ways of both protecting the citizenry and of limitating individual liberty: The net metaphor refers, on one hand, to a *protective* structure connecting people horizontally instead of linking them hierarchically; on the other hand, it refers to cobweb structure that leads to the *limitation* of autonomy and freedom. The most significant concrete case of net-structured politics is e-democracy, since it is based on "net of nets" structure of the Internet.[8]

This paper aims to list and briefly assess the arguments that claim mechanical-representative democracy may be enhanced or replaced by an updated electronic version. Focusing on different elements defining representative democracy I will assess the ability of the net metaphor to consistently describe the (supposed) new form of democracy. The image of the pyramid was a successfully employed to describe the crucial aspects of several forms of government, including democracy where elections were conceived as a bottom-up start input for the political decision-making process – contrarily to autocracy where power descends from above – or where the tip of the pyramid was represented by the supreme law (i.e. constitution) regulating democratic coexistence.[9] My claim is that the shift from the *pyramid*

[5] G. Morgan, *Images of Organisation*, Sage, Thousand Oaks 2006, 73.
[6] *Ibidem*.
[7] F. Ost, M. de Kerchove, *De la pyramide au réseau?: pour une théorie dialectique du droit*, Publications des Facultés universitaires Saint-Louis, Bruxelles 2002.
[8] *Ivi*, 116.
[9] H. Kelsen, *General Theory of Law and State* (1945), The Lawbook Exchange, Clark (NJ) 2007.

to the *net*-image implies a shift of outlook on politics: a step away from the rational regularity of the "sphere" as proposed by Abbé Sieyès during the French revolution:

> I like to conceive of the law as if it is at the centre of an immense globe. Every citizen, without exception, is at an equal distance from it on the circumference the globe, and each individual occupies an equal place. Everyone depends equally upon the law; everyone offers it his liberty and property to protect.[10]

The web metaphor calls to mind the "gothic images of political space"[11] different from enlightenment political metaphors. In fact, the spherical imagery of the Internet does not related to the equidistance of citizens with regard to the law but rather it relates to the interconnections of surfers at the *global* level. The "sphere" is not that of *isonomia* but that of the globe. Furthermore, even this image of worldwide interconnection should be reframed because of the phenomenon of the "regionalization of the Internet", as in the case of Chinese web search engine Baidu.[12]

The paper is structured as follows: The consistency of the political use of the net metaphor is assessed in relation to the arguments of proximity (§2), transparency (§3), bottom-up mobilization (§4), public sphere (§5) and disintermediation (§6). The literature taken into consideration is mainly from the field of political science and concerns the transformation of democratic regimes following the massive use of ICTs. My claim is the electoral moment is crucial in analysing new theories of democracy because it is the distinctive element of representative democracy. Indeed, the main difference between what we call democracy today and what the ancient Greek called the "government by the many" – both form of government based on the specific value of political equality[13] – is the mediation in the law-making process.[14] Therefore, the first and most naïf way of conceptualizing e-democracy as different from mainstream 20th century representative democracy regimes is to imagine it as a new form direct democracy: this conception is often underlying contemporary studies of e-voting.[15] To avoid some of the ingenuousness of this conception of e-democracy,

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[10] E.J. Sieyès, What is the Third Estate? (1789), in: *Political writings*, Hackett, Indianapolis 2003, 156.
[11] P. Violante, *Lo spazio della rappresentanza. Francia 1788-1789* (1981), XL, Roma 2008.
[12] http://www.baidu.com (last accessed: January 7th 2012); see Z. Liu, J. Zhang, H. Zhang, J. Chen, Usability in China, in: *Global Usability*, eds. I. Douglas, Z. Liu, Springer, Dordrecht 2011.
[13] On political equality in the double sense of "inclusivity" and "equal weight to every vote", see Bobbio (note 2).
[14] M.I. Finley, *Democracy ancient and modern*, Chatto & Windus, London 1973.
[15] For a critical assessment see *La démocratie dématérialisée. Enjeux du vote électonique*, ed. L. Favier, Seuil, Paris 2011; H. Buchstein, Online Democracy, Is it Viable? Is it Desirable? Internet Voting and Normative Democratic Theory, in: *Electronic Voting and Democracy. A Comparative Analysis*, eds. N. Kersting, H. Baldersheim, Palgrave, London, 2004; R.M. Alvarez, T.E. Hall, *Electronic Elections. The Perils and Promises of Digital Democracy*, Princeton University Press, Princeton 2008; M. Hilbert, The Maturing Concept of E-Democracy: From E-Voting and Online Consultations to Democratic Value Out of Jumbled Online Chatter, *Journal of Information Technology & Politics*, 6, (2009).

we should take a step back and consider a broader range of issues than mere gerrymandering around the electoral moment. Therefore I shall problematize the abovementioned approach by analysing a wider range of problems connected to election and electioneering – foremost political mobilization around elections – in their relation with ICTs.

II. The Proximity Argument: *Democratic E-governance*

The net would be narrowcast: you can move, step-by-step, to join a large amount of people trough your friends and contacts. *In a click* you are connected to what was traditionally considered to be remote and inaccessible places and people.

Political scientists and sociologists have already stressed the "lack of community" as a problem for representative democracy in the global age.[16] One of the reasons of the fortune of local governance practices and theories is based on the political narrative of the "return to community",[17] weakened by individualistic basis of democracy.[18] Rediscovering proximity between rulers and ruled has been considered a higher quality of legitimacy for democratic countries.[19] The lack of proximity is one of the arguments used by governance theorist to criticise classical representative democracy; in particular, the electoral procedures to choose representatives and representative intermediation itself would build a gap between citizen and State institutions, placing the former too *far* from the decision-making centres of regulations and provisions affecting their everyday life.[20]

The use of the Internet should be considered crucial in responding to this proximity need, on one hand by creating new community networks focused on neighbourhood policy;[21] and on the other hand by promoting networked communities, represented by the fortunate metaphor of the "Global Neighbourhood", used by 1995 Commission on Global Governance and in the *Charter 99*.[22]

The proliferation of experiments of e-governance at the local level is an example of this attempt to bridge decision-making practices and informal online channels of debate, enhancing classical electoral mediation between lawmakers and their constituencies. The

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[16] See e.g. Z. Bauman, *The Individualized Society*, Polity London 2000.
[17] M. Bevir, *Democratic Governance*, Princeton University Press, Princeton 2010.
[18] M. Sandel, *Democracy's Discontent*, Harvard University Press, Cambridge 1996.
[19] P. Rosanvallon, *Democratic Legitimacy: Impartiality, Reflexivity, Proximity* (2008), Princeton University Press, Princeton 2011.
[20] *La proximité en politique. Usages, rhétoriques, pratiques*, eds. C. Le Bart, R. Lefebvre, Presse Universitaire de Rennes, Rennes 2005.
[21] B.E. Tonn, P. Zambrano, S. Moore, Community Networks or Networked Communities?, *Social Science Computer Review*, 19, 2 (2001).
[22] http://www.i-p-o.org/global-democracy.htm (last accessed: January 7th 2012); see J. Tomlinson, Proximity politics, in: *Culture and Politics in the Information Age. A new politics?*, ed. F. Webster, Routledge, London 2001.

relevance of ICTs in politics, in fact, depends on the impact on the entire chain of representation and not only on the specific moment of casting the ballot. On the home page of one of the most know experiment of network community website (Minnesota E-Democracy),[23] you can read:

> Join us to participate in public life, strengthen your community, and build local democracy. From neighbourhoods up, we use online tools to host community conversations that make things better.

This approach to policy-making involvement deeply impacts traditional representative channels of democracy, including adding or including new individuals in decision-making at the local level, as in Santa Monica, California's Public Electronic Network (PEN),[24] a civic network born in the early Nineties to share information and comments among citizens; or projects destined to specific categories – e.g. young people – as in the case of recent Italian Bollenti Spiriti 2.0[25] in which the region Apulia created a virtual platform addressed to youngsters who wanted to participate in local development projects. The aim of these experiments and its underlying value is inclusivity of "any individual, social group, or actor who possesses a stake (e.g., interest, legal obligation, moral right) in the decisions or outcomes of an organization".[26] Not far from stakeholder-theory on governance studies, inclusivity pertains to the ambition of involving a growing amount of actors in local policy-making. E-governance procedures tried to fill the gap between rulers and ruled that characterizes the classical mechanisms of representative democracy, "motivating new groups for civic involvement and political action".[27] This decision-making process, focusing on civic engagement, basically skips the electoral moment overcoming the mandate-independence problem.[28] The independence of representatives from the voters – first enshrined by the *Assemblée nationale* in 1789 during the French Revolution – is, at the same time, at the core of modern conception of democracy and it is regularly under attack because it is seen as the main cause of the gap between rulers and ruled in western countries.

In addiction, there are several possible counterarguments to the proximity model of e-democracy. The first problem with e-governance experiments is the "mobilization of mobilised"-effect; according to Jakob Linaa Jensen's study on the Minnesota E-democracy

[23] http://forums.e-democracy.org/ (last accessed: January 7th 2012).
[24] http://www.smgov.net/ (last accessed: January 7th 2012).
[25] http://bollentispiriti.regione.puglia.it/ (last accessed: January 7th 2012).
[26] D. Manuel-Navarrete, C. Modvar, Stakeholder, in: *The Encyclopedia of Governance*, ed. M. Bevir , Sage, London 2007, 918.
[27] J. Linaa Jensen, The Minnesota E-democracy Project: Mobilising the Mobilised?, in: *The Internet and Politics. Citizens, voters and activists*, eds. S. Oates, D. Owen, R.K. Gibson, Routledge, London 2006.
[28] H.F. Pitkin, *The Concept of Representation*, University of California Press, Berkley 1967, 144.

project, the active citizens are richer and have a higher level of education compared with the average population and they were often already involved in public affairs: "Twenty-six per cent of participants identify themselves with other positions".[29]

The second problem is at the core of the debate about the use of ICTs in decision-making process: the network surveillance and control issue. In 2011 Evgeny Morozov reassumed "cyberpessimist" arguments in his *The Net Delusion: the Dark Side of Internet Freedom*. In his arguments the net is the easiest way for rulers to control the ruled trough surveillance and propaganda: that is why "the KGB wants you to join Facebook".[30] Furthermore, the privacy problem on the Internet goes beyond the problem of political power control on citizens: personal data gathered on the net are valuable for companies and corporations. The narrowcasting of the net could be an instrument for political, economical and ideological powers for increasing their influence, by justifying such measures – this is the core thesis of cyberpessimism – with the argument of democratization through ICTs. The "global neighbourhood", in other words, would lead to a "global gossip system" as a new form of "interpersonal surveillance"[31] linked to the underestimation for the risks related to the accessibility of your data,[32] including your political or religious view and your personal web of friends or colleagues.

Besides, the "organisation of visibility" can be arranged according to values and interests thanks to different algorithms for classifying and organising information.[33] That is the meaning of the very well known Lawrence Lessig formula "Code is law": on the Internet, the logical infrastructure choices are more relevant for users than juridical constraints.[34]

The narrowcasting, in conclusion, responds to the criticism of the gap between rulers and the ruled as well as to the criticism of the remoteness of representatives. However, this political approach seems to depend on traditional guaranties offered by representative democracies that defend privacy against political and social power. That is why the Italian legal scholar Stefano Rodotà asked for a "constitution for the Internet" including a *habeas data* inspired by classical guaranties of the *habeas corpus*.[35]

[29] Linaa Jensen (note 27), 39.
[30] E. Morozov, *The Net Delusion. The Dark Side of Internet Freedom*, Public Affairs, New York 2011.
[31] P. Bradwell, N. Gallagher, *We no Longer Control what Others Knows bout Us, bet We Don't yet Understand the Consequences*, Demos, London 2007; D. Cardon, *La démocratie Internet. Promesses et limites*, Seuil, Paris 2010, 64.
[32] Morozov (note 29), 223.
[33] Cardon (note 30), 95.
[34] L. Lessig, *Code: version 2.0*, Basic Books, New York 2006; Flichy (note 3), 161.
[35] S. Rodotà, Una costituzione per internet?, *Politica del diritto*, XLI, 3 (2010).

III. The Transparency Argument: *Democratic E-government*

The net would be mappable. We have hitherto considered an *ex parte populi* perspective, where transparency appears to be potentially dangerous for privacy, for example in jeopardizing the guarantees of secrecy of voting and expressing political preferences. However, if we adopt an *ex parte principis* perspective, transparency becomes a much more powerful argument in legitimising power. The visibility of power has always been considered one of the most important "unkept promises of democracy".[36] Despite the theories of democracy as the form of government where State power is public – i.e. non-private – and expressed in public – i.e. not in secret –, the analysis of so-called "real democracies" sheds light on the fact that representative mediation leads to an *opaque* management of power alongside the official parliamentary procedures.

Moreover, together with inclusivity, accountability is a key argument used to legitimate new forms of both governance and government. The scarcity of time available to citizens in contemporary society and the complexity of governmental procedures make transparency trough e-government an important asset to reconnect representatives to their constituency.

The use of ICTs by governments has been analysed by focusing on different dimensions: the efficiency in intra and intergovernmental exchange; the retrench in the relations between government and business;[37] but the most important field studied by social science pertains to transparency in public management[38] and in the legislative branch, i.e. e-parliament. The latter is relevant for electoral and electioneering relation between citizens and their representatives, because it concerns the accountability of government conceived as the possibility of voters to discern whether governments are acting in their interest or not and vote accordingly in the next elections.[39]

According to the UN *World e-Parliament Report 2008*:

> E-parliament [is] a legislature that is empowered to be more transparent, accessible and accountable through ICT. It empowers people, in all their diversity, to be more engaged in public life by providing higher quality information and greater access to its parliamentary documents and activities. It is an organization where connected stakeholders use information and communication technologies to support its primary functions of representation, law-making and oversight more effectively.[40]

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[36] N. Bobbio, *The Future of Democracy* (1984), University of Minnesota Press, Minneapolis 1987.
[37] A. Chadwick, C. May, Interaction between states and citizens in the age of the internet: «E-government» in the United States, Britain, and the European Union, *Governance*, 16, 2 (2003).
[38] H. Margetts, Public Management Change and E-government: the Emergence of Digital-era Governance, in: *Routledge Handbook of Internet Politics*, eds. A. Chadwick, P.N. Howard , Routledge, London 2009.
[39] *Democracy, Accountability and Representation*, eds. A. Przeworski, S.C. Stokes, B. Manin, Cambridge University Press, Cambridge 1999, 40.
[40] http://www.ictparliament.org/wepr2008 (last accessed: January 7th 2012).

British Parliament pioneered this approach in 1996 by going online at www.parliament.uk.[41] Since then, the effort of making Parliament visible to the public, in a parallel effort to do the opposite, i.e. "making the public visible to Parliament" trough online parliamentary consultation[42] has been pursued. The United Kingdom restructured its ICT operation and created an agency that serves both the House of Lords and the House of Commons called *Parliamentary Information and Communication Technologies* (PICT), with the aim of improving the quality of service, reducing redundancy and costs of systems. Another relevant example of transparency of government trough ICTs is *Your Voice*.[43] The European Union portal for legal issues can be used as a database that allows users to give their opinion on EU policies and discuss the main issues of the day. It is an example of what can be done to reconnect voters and their elected representatives that is especially important given the so-called "democratic deficit" of EU institutions.

Therefore the idea of increasing the accountability of government through its online transparency recalls the glasshouse of power image. However this image does not consider a recurrent problem within digital settings, i.e. the "paradox of too much information": "While providing all relevant documents and information may be necessary for achieving the goal of parliamentary transparency, it is not sufficient for attaining the goal of civic understanding" because "what citizens often need even more is an objective summary of the most important issues and a better awareness of the legislative process".[44] In other words, simply increasing availability of information does not guarantee the comprehension of the Acts, but it could be a source of legitimacy. Rather than *glasshouse*, power made transparent by the Internet seems to lead to the image of *iron cage*[45] as well as rationalised power described by Max Weber.

After the so-called "Macaca moment"[46] that affected the last US presidential election campaign – a candidate's gaffe captured on YouTube that gathered momentum and had a high political impact – the National Republican Senatorial Committee published a guidebook for candidates where it is claimed that "they should assume there is a camera on them at all times and act accordingly"; this leads David Karpf to ask the question on transparency in terms of a form of "electoral panopticon".[47] Furthermore, the recent event of the disclosure of sensitive

[41] www.parliament.uk (last accessed: January 7th 2012).
[42] S. Coleman, Making Parliamentary Democracy Visible: Speaking to, with, and for the Public in the Age of Interactive Technology, in: Chadwick, Howard (note 37); S. Coleman, J.G. Blumler, *The Internet and Democratic Citizenship*. *Theory, practice and policy*, Cambridge University Press, Cambridge 2007, 90-116.
[43] http://ec.europa.eu/yourvoice/ (last accessed: January 7th 2012).
[44] *World e-Parliament Report 2010* (note 40), 18.
[45] M. Weber, *The Protestant Ethic and the Spirit of Capitalism* (1930), Routledge, London 2001, 123.
[46] http://www.youtube.com/watch?v=r90z0PMnKwI (last accessed: January 7th 2012).
[47] D. Karpf, Macaca Moments Reconsidered: Electoral Panopticon or Netroots Mobilization?, *Journal of Information Technology & Politics*, 7 (2010).

intelligence information – well-known as the Wikileaks scandal – raised the question of the limits of visibility of state action.[48]

Even this second set of arguments around e-government does not seem to make it incompatible with classical representative democracy. On one hand, in fact, e-government seems to benefit democratic accountability of electorally legitimated representatives; on the other hand, traditional checks and balances are still essential to prevent the reduction of democracy to the mere accountability of transparency.

IV. The Bottom-up Argument: *Democratic E-participation*

The net would be interactive. The most relevant and diffused argument supporting e-democracy is the bottom-up engagement argument: from Barack Obama's online electioneering campaign the new optimistic view of regenerating traditional top-down politics, accused of being closed, hierarchical and elitist, is booming. According to Arianna Huffington, founder of one of the most influent political blog in Washington:

> Were it not for the Internet, Barack Obama would not be president. Were it not for the Internet, Barack Obama would not have been the nominee.[49]

The electioneering experiences related to the Internet have been considered as revolutionary in today's context of the crisis of parties,[50] the antipolitical decrease in mobilization and the spread of the phenomenon of electoral abstention. Since Howard Dean's online campaign in 2004,[51] political scientists focused on the role of ICTs on electoral campaigning to describe new grassroots movement characterized by hybridises[52] and acephalous[53] forms of organization.

This diversification of repertoires goes from conventional political campaigns shown and supported on the Internet – e.g. YouChoose[54] section of YouTube[55] –, providing independent

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[48] Y. Benkler, A Free Irresponsible Press: Wikileaks and the Battle over the Soul of the Networked Fourth Estate, *Harvard Civil Rights Civil Liberties Law Review*, 46, 2 (2011), available at http://harvardcrcl.org/wp-content/uploads/2011/08/Benkler.pdf (last accessed: January 7th 2012).
[49] http://www.huffingtonpost.com/2009/01/09/flashback-arianna-were-it_n_156730.html (last accessed: January 7th 2012).
[50] *Political Parties and the Internet. Net Gain?*, eds. R.K. Gibson, P. Nixon, S.J. Ward, Routledge, London 2003.
[51] G. Wolf, How the Internet Invented Howard Dean, *Wired*, 2, 1 (2004), available at http://www.owlnet.rice.edu/~comp300/documents/HowtheInternetInventedDean.pdf (last accessed: January 7th 2012); J. Trippi, *The Revolution Will Not Be Televised: Democracy, the Internet, and the Overthrow of Everything*, Harper Collins, New York 2004.
[52] A. Chadwick, *Internet Politics: States, Citizens, and New Communication Technologies*, Oxford University Press, New York 2006.
[53] Coleman, Blumer (note 41), 118.
[54] http://www.youtube.com/youchoose2010 (last accessed: January 7th 2012).
[55] S.H. Church, YouTube Politics: YouChoose and Leadership Rhetoric During the 2008 Election, *Journal of Information Technology & Politics*, 7 (2010).

information,[56] e-petitions, e-mail campaigning and fundraising, jamming – i.e. the remix of digital content with the aim to reconfigure hegemonic meaning – or hacktivism – i.e. hacker-attempts to disrupt official versions of online information.[57]

Therefore, e-participation is the trump card in arguing in favour of "electronic revolution" in democratic countries. The arguments are – as already emphasised – that new media increases transparency and inclusion, especially of youngsters, normally absent from politics[58] by increasing the level of interactivity.[59] This leads to another significant argument in favour of e-participation electioneering concerns the relation with "old media" and the shift of political information and mobilization "from on-air to online".[60] The Internet overcomes the one-to-many architecture as traditionally the only possible type of political communication: blogs, YouTube, web sites and social networks allow new forms of many-to-many and many-to-one channels of communication.[61] The case of recent Italian referenda is an example of how the Internet – together with other alternative ways of expressing political views – can bypass the concentration of media power. In Italy, referenda had not met the formal requirement of a quorum of 50%+1 since 1995. In June 2011 four referenda – to repeal recent norm concerning the construction of new nuclear plants, the privatisation of water management and a so-called *ad personam* act made by Prime Minister Berlusconi – reached the highly unexpected result of massive participation (57% of the voters). This outcome stands out because of the lack of information provided by traditional media (e.g. television), thanks to an informal campaign using the web as main channel of communication.

Theses new forms of electioneering connected to ICTs could be analysed, on another reading, by focusing on the debated problem of the "digital divide" – i.e. the inequality in access and use of the Internet by creating new form of discrimination. E-participation is affected by the digital divide because those who are online are more active and interested in politics than the average voter.[62] Another critic argument relieved about e-participation is that the interconnected and speed structure of the net could lead to new forms of populist

[56] C. Atton, *An Alternative Internet*, Edinburgh University Press, Edinburgh 2004.
[57] T. Jordan, Online Direct Action: Hacktivism and Radical Democracy, in: *Radical Democracy and the Internet: Interrogating Theory and Practice*, eds. In L. Dahlberg, E. Siapera, Palgrave Macmillan, New York 2007.
[58] D. Owen, The Internet and youth civic engagement in the United States, in: Oates, Owen, Gibson (note 27).
[59] H. Gil de Zúñiga, A. Veenstra, E. Vraga, D. Shah, Digital Democracy: Reimagining Pathways to Political Participation, *Journal of Information Technology & Politics*, 7 (2010).
[60] D. Morris, Direct Democracy and the Internet, *Loyola of Los Angeles Law Review*, 34, 3 (2001).
[61] M. Castells, *Communication Power*, Oxford University Press, Oxford 2009.
[62] *Electronic Democracy. Mobilisation, Organisation and Participation via New ICTs*, eds. R.K. Gibson, A. Römmele, S.J. Ward, Routledge, London 2004, 3.

demonization of political parties and other traditional organization for combining consensus with the risk of plebiscitary forms of democracy.[63]

The relation between representative and electronic democracy seems to be complementary. On one hand, ICTs could revitalize a public opinion in terms of electioneering and civic engagement; on the other hand classical rule of law guaranties would need to guard against new form of both elitism and populism maybe redesigning checks and balances guarantees so as to enable institutions of control to perform effectively in the new environment.

V. The Public Sphere Argument: *Democratic E-deliberation*

The net would be horizontal. According to deliberative democracy theorists, the legitimacy of political procedures depends – following Habermas – on the standards of deliberation, which implies public exchange of arguments.[64] The Internet would provide a new space of deliberation different from and in contrast with classical image of political communication being structured vertically, i.e. hierarchically. In fact, the concentration of public opinion on the electoral moment or on partisan propaganda mobilisation could devalue the importance of a critical public sphere entailing serious risks for real capacity of choosing representatives freely. Following Tocqueville's well-known warning on "mild despotism":

> It is in vain to summon a people, which has been rendered so dependent on the central power, to choose from time to time the representatives of that power; this rare and brief exercise of their free choice, however important it may be, will not prevent them from gradually losing the faculties of thinking, feeling, and acting for themselves, and thus gradually falling below the level of humanity.[65]

The interactive many-to-many structure of the Web[66] change the paradigm of interaction within the public sphere[67] that can conciliate the quality of in-depth public discourses and the quantity of mass public penalized by the simplification of debates in mainstream media, especially TV.[68]

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[63] B. Bimber, The Internet and Political Transformation: Populism, Community and Accelerated Pluralism, *Polity*, 32,1 (1998).
[64] *Deliberative Democracy and its Discontent*, eds. S. Besson, J.L. Martí, Ashgate, Aldershot 2006, xv.
[65] A. de Tocqueville, *Democracy in America* (1835-40), The Library of America, New York 2004, 820.
[66] S. Coleman, Cutting Out the Middle Man: from Virtual Representation to Direct Deliberation, in: *Digital Democracy Discourse and Decision Making in the Information Age*, eds. B.N. Hague, B.D. Loader, Routledge London 1999.
[67] P. Dahlgren, The Internet, Public Spheres, and Political Communication: Dispersion and Deliberation, *Political Communication*, 22 (2005).
[68] J.P. Barlow, The Power that Were, *Wired*, 197 (1996); Flichy (note 3), 157.

The contextualisation of new political channels of debates in the wider "new political culture"[69] have induced scholars to conceptualize a new form of non-geographically bounded society where ICTs enabled a significant increase of political – but not only political – interaction: the so-called "network society".[70] A new generation of individuals active in the public sphere – as opposed to "passive readers, listeners, or viewers"[71] – raised thanks to (1) "the shift from a hub-and-spoke architecture with unidirectional links to the end points in the mass media, to distributed architecture with multidirectional connections among all nodes in the networked information environment"; and (2) "the practical elimination of communications costs as a barrier to speaking across associational boundaries".[72]

The neutrality of ICTs[73] recalls arguments put forward by Jürgen Habermas[74] concerning the two main values of ideal speech situations that inspires deliberative democracy theory today, i.e. rationality and impartiality.

Furthermore, E-deliberation is been criticized since the Nineties with the argument of the "Babel tower".[75] As in the Bible story[76] the network society would suffer of informational overload. According to this criticism – influenced by Samuel Hungtington anti-globalism – "when everyone can speak, no one can be heard".[77] More recently other specific criticism have been directed against web deliberation; according to Cass Sunstein[78] the Internet would amplify phenomena as cascades of falsehood and polarization of groups. A "cybercascade" is the rapid spread of information that could be better understood considering that the number of viewer of a YouTube video often depend by the amount of previous viewers. According to Suntein, this phenomenon occurs in the net without any guarantee of verifiability. It is the case for most movie star gossip. The rapid reproduction of false quotes ascribed to celebrities is another example of falsehood cybercascades or what Sunstein labels "rumours" on the Net. On the other hand, the polarization argument cautions against the empirical evidences that the Internet stimulates the rise of homogeneous groups of discussion where opinions are

[69] A. Scott, J. Street, From Media Politics to E-protest? The Use of Popular Culture and New Media in Parties and Social Movements, in: Webster (note 21).
[70] M. Castells, *The Rise of the Network Society*, Blackwell, Oxford 2000[2].
[71] Y. Benkler, *The Wealth of Networks: How Social Production Transforms Market and Freedom*, Yale University Press, New Haven 2006, 212.
[72] *Ibidem*.
[73] For a problematic approach see Cooper (note 1), 99; Lessig (note 33).
[74] J. Habermas, *Between Facts and Norms* (1992), MIT Press, Cambridge 1996.
[75] P. Virilio, *Open Sky*, Verso, London 1997.
[76] Genesis 11:5-8.
[77] For a critical assessment see Benkler (note 70).
[78] C.R. Sunstein, *Republic.com*, Princeton University Press, Princeton (NJ) 2002; Id., *On Rumors: How Falsehoods Spread, Why We Believe Them, What Can Be Done*, Palgrave Macmillan, New York 2009.

confirmed and strengthen rather than be debated and questioned as in the Habermasian model of public discussion, with the risk of trivialising knowledge and communication.[79]

Indeed e-deliberation can be studied as an interesting case of how the Internet could revitalize democracy as long as the classic guaranties of democratic system remain in force. The complex architecture mixing together democratic concept of popular sovereignty and liberal guaranties of the rule of law – such as checks and balances, separation of powers, independence of the judiciary from other branches of government, civil liberties legal protection… – could be justified as a warranties of what Norberto Bobbio called the "rules of democratic game", including the right of the free formation of political opinions.[80]

VI. The Disintermediation Solution: *Direct E-democracy?*

Modern representative democracy has been criticized, since its dawn, because of the electoral form of mediation at its base. In *The Social Contract*, Jean-Jacques Rousseau harshly criticized English institutions of representative government:

> The English nation thinks that it is free, but is greatly mistaken, for it is so only during the election of members of Parliament; as soon as they are elected, it is enslaved and counts for nothing. The use it makes of the brief moments of freedom renders the loss of liberty well-deserved.[81]

The abovementioned arguments are all related to the supposed *disintermediation virtue* of the net. The proximity argument – related to e-governance – has been used to claim the necessity of filling the gap between decision-makers and stakeholders. The transparency argument – related to e-government – claims to remove obstacles to the publicity of power. The bottom-up argument – typical of e-participation – calls for a new form of legitimacy that goes beyond classical mediation of parties, unions or "old" mass media. The public sphere argument – common in e-deliberation theories – refers to the problem of hierarchical relation between voters and their representatives.

These are the reasons why e-democracy more and more frequently has been identified with direct democracy[82] in contrast with the electoral mediation system. Disintermediation – i.e. "removing intermediaries from a supply chain, a transaction, or more broadly, any set of social, economic or political relation"[83] – summarizes all normative assumptions on the democratising effect of the Internet.

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[79] N. Carr, *The Shallows. What the Internet Is Doing to Our Brains*, Norton, New York 2010.
[80] Bobbio (note 1), 66.
[81] J.J. Rousseau, *The Social Contract* (1712), Yale University Press, New Haven 2002, 221.
[82] Morris (note 59).
[83] A. Chadwick, Disintermediation, in: Bevir (note 25), 232.

The main problem with all these arguments is the constant sliding from the descriptive to the prescriptive level, comparing indiscriminately facts with values. Normative model, such as inclusive governance decision-making or Habermassian deliberation, are hard to compare with empirical digital data, as e.g. the number of viewers of Barack Obama speeches on YouTube. Indeed, exactly like the invention of writing in Mesopotamia in 3000 BC, ICTs are primarily a matter of fact rather then value or disvalue. As all revolutionary events, the invention and the development of the net implies a wide range of consequences by creating "macroscopic transformation in our social structures and physical environment, often without much foresight".[84] Hence, the dichotomy of traditional notion of direct and representative democracy does not seem to capture the unprecedented challenges posed by ICTs to political theory.

To overcome the naïve opposition between cyberpessimism's panoptical prophecy and cyberoptimism's euphoric trust in grass-root regeneration, seems to be useful to try to abandon Kantian perspective of pushing reality into normative patterns.

Looking for different methods to analyze the relations between politics and ICTs we need to go back and forward from analytical concepts to empirical observation of changes related to electronic innovations. According to John Rawls' theory of *reflective equilibrium*:

> We may want to change our present considered judgments once their regulative principles are brought to light. And we may want to do this even though these principles are a perfect fit. A knowledge of these principles may suggest further reflections t hat lead us to revise our judgments.[85]

This inductive method – based on mutual adjustment among general principles and empirical observations – could be helpful to update political categories considering technical and social transformation related to ICTs.

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[84] L. Floridi, Ethics after the Information Revolution, in: *The Cambridge Handbook of Information and Computer Ethics*, Cambridge University Press, Cambridge 2010, 19.
[85] J. Rawls, *A Theory of Justice*, Clarendon, Oxford 1971, 49.

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Ignorance and Political Representation in the Net
On Public Infosphere and the Spanish 'Indignants' Movement

Abstract: The aim of this paper is to explore the case of the Spanish 'indignants' movement of May 2011 as an example of the structural changes occurring in the public sphere after the emergence of a new type of social movement characterized by the widespread use of the ICTs. First I focus on the ideological dimension of discourse of the 'indignants' movement, so as to reconstruct the protesters' self-image. They thought that ICTs were playing a prominent role in a wider trend towards a regeneration of democracy, but they were rather misguided because they lack an accurate description of what really happened. In the second part of this paper I will challenge some features of my case study, emphasizing three basic elements of a democratic public sphere. I aim to call into question the idea that a 'truly' democratic public may be hosted by the emergent communicative environment.
Keywords: *Public Sphere*, *Social Movements, Participation, Political Information, Digital Democracy, E-democracy, ICTs*

I. Himmler Mouse wearing a Euro-Hat

The Spanish 'indignants' were described by the public opinion as a social movement that emerged on the net. Not an old style peasant revolt, like those of the *Ancien Régime*, and not even a movement originating from the 'civil society', organized and politically aware, like those of the 90's, but something *essentially* different, with a revolutionary aura. It was described by protesters and observers as a 'wikirevolution', because it circulated on Twitter and Facebook well before the conventional media notice its existence, notwithstanding its several tens of thousands of enthusiastic followers. Its nearest precedent in Spanish political history was the movement that exploded seven years before, in the afternoon of March 13th, 2004, two days after the terrorist bombing at the Atocha railways station, which caused nearly two hundred victims, just a day before the legislative elections, when a massive number of SMS messages ignited huge spontaneous protests of angry citizens demanding transparency. Those protests provoked a political turmoil that changed the electoral results, punishing the former Government that tried to manipulate evidence regarding responsibilities for the terrorist attack.[1] In the 13-M movement, in 2004, as in the 15-M movement, in 2011, it was impossible to distinguish real voices of people marching in the streets and virtual ones crowding the electronic agora. Public opinion entered a state of extreme agitation. The public

[1] Enrique Gil Calvo, *11/14 M. El cambio trágico: de la masacre al vuelco electoral*, Adhara, Madrid 2005.

sphere, in its multiple layers, formal and informal, was contaminated by a shared emotion. Boundaries between the 'real' and the 'virtual', the 'common' and the 'private', the 'general' and the 'particular' became fluid.

The aim of this paper is to explore the case of the Spanish 'indignants' movement of May 2011 as an example of the structural changes occurring in the public sphere after the emergence of a new type of social movement characterized by the widespread use of the ICTs. First I focus on the ideological dimension of discourse of the movement, so as to reconstruct the protesters' self-image. They thought that ICTs were playing a prominent role in a wider trend towards a regeneration of democracy, but they were rather misguided because they lack an accurate description of what really happened (§2-3). In the second part of this paper I will challenge some features of my case study, emphasizing three basic elements of a democratic public sphere. I aim to call into question the idea that a 'truly' democratic public may be hosted by the emergent communicative environment (§4-7).

II. The 'indignants' demands

The central demands of the movement converged in the slogan 'We are not represented'. Indeed, this is not a sophisticated revolutionary agenda, but rather an effective way to bring into the public eye the idea that parties and trade unions were not defending the interests of the social groups that were paying the highest price for the 2008 crisis: unemployed, young people and immigrants. That slogan was printed in red letters on a poster that covered an entire building at the 'Puerta del Sol', in Madrid, showing the face of Heinrich Himmler, the Nazi Commander, with Mickey Mouse's ears and wearing a hat with the Euro symbol stamped on his forehead. This amazing image was exposed at midnight on May 21st, the precise moment when the measures banning political activism in the immediate time before the elections (24h) entered into force. The crowd in the square covered their mouths with bandages and, after a minute of silence, uncovered them and began to shout: 'the voice of the people is not illegal'.

A few days before, the evening of May 15th, in Barcelona, in a similar atmosphere, the virtual encounters became real when thousands of people gathered around dozens of blank banners, lay down on the street, where everybody could write their own feelings. A protester reported: «There was an emotion floating in the air, a sense of leisure and relief, a therapeutic touch. Everyone was happy. At the end of the rally, in the Parc de la Ciutadella, I looked around and realized that I was not alone. «Most of us were carrying a banner which belonged to someone else».[2]

It is easy to imagine that the echo of what was happening in the streets was reverberating immediately on the net. The movement had 'occupied' simultaneously the real and the virtual space. It succeeded in transforming both spaces into a genuine *tabula rasa* on which everything could happen, even the 'unexpected': that people could ask for 'real democracy'. «I clicked 'I like it' with passion», writes our witness. There was an explosion of political talk on the blogs. Ordinary people were able to discuss «without representatives, without party labels, just voicing the undeniable complaints against politicians and bankers. And a plea for unity». Then, the witness concludes:

> We behaved in the streets exactly in the same way we did on net. It was a widespread, transversal movement, one in which everyone was entitled to take their own decisions, and where the technical work of the software designers was essential to ponder the common. We were demanding anonymity while we were making an

[2] Alba Muñoz, Del síndrome Wikileaks a la democracia 2.0. Las redes sociales y el 15M, in: A. Fernández Savater *et alii*, *Las voces del 15M*, Los panfletos del lince, Madrid 2011, 37.

> experience of real and free participation, producing something that was collective. No one represented us, but we felt represented by that amorphous mass, in permanent mutation. It was not chaos but sheer participation. And we were not in a hurry, since we were thinking about what could be the best tools to use to participate in the society in which we are expected to participate. We did not realize before that day that Internet was generating a new social legitimacy, teaching us how to organize ourselves in a natural way, confronting the democratic institutions of the 21st century. On the Internet, we were active, we selected and disseminated, and we criticized whatever we liked; the opposite of what usually happens in current politics, which is one-way, just like television: take it or leave it. Streets returned to the network what came from the network, but with a physical, necessary and definitive social experience which multiplied its strength because at the same time we have been transformed by it. At the camp [in Puerta del Sol] we discovered that freedom is not competition, an individual crusade, but lies in the 'collective'. And that the Internet is also present in the street.[3]

The entire phenomenon was predictable and, at the same time, surprising. It was predictable because of the disenchantment and resentment caused by the economic crisis in which the country entered several years ago, resulting in a dramatic erosion of social expectations. Many needed an escape valve to express 'indignation'. In fact, if news about the movement opened a window in the international mass-media even for just a few seconds it was not due to the 'novelty', nor to the number of citizens who joined the movement, but because it was a somehow 'expected' event, or at least not completely unexpected. But, at the same time, it was a surprising event, and not just because of the imaginative language chosen, including the image of Himmler Mouse, but because the entire event was perceived by the protesters, and by the general public, as something unexpected. Everybody who was 'there' felt to be attending a 'unique' event, which has the power of changing the course of history. And for those who were not there, it was 'obvious' that conventional media would inform them about something that was happening at that moment and that everybody perceived as 'new'.

III. What about e-democracy?

Let us explore the protesters' perception about the revolutionary features of their movement and, particularly, about the role of ICTs in that context. What can we say about the image they had of 'real democracy'? Is it reasonable to share the indignados' expectancy of a democratic improvement in the shifting of public debate from the physical to the virtual agora?

Roughly speaking, the outcome of the widespread application of communication technologies to the political debate is supposed to be the emergence of a new kind of public sphere, characterized by horizontality of interaction, dissemination of information and control, and redistribution of social influence. It is obvious that it would be misleading to take these results for granted and, especially, their implications regarding a 'deepening' and

[3] *Ibidem*, 41-3.

'strengthening' of democracy. We should consider that we might have other upshots equally relevant for democratic aspirations. Changes related to new technologies could be more superficial than we think and not really modify the basic structures of opinion and democratic will formation. People chat, bloggers talk, information flows, images circulate, but political processes could remain approximately the same. Moreover, other consequences of the upcoming age of net-society are equally possible. We can easily agree that technologies can promote attitudes and behaviors, but there is no evidence that the new 'stage' in democratic evolution we are approaching is going to be as democratic as expected and desired. Moreover, there is a conceptual difficulty: it cannot be asserted in advance that by moving to the infosphere, 'democracy' remains the same. Whatever the changes, conceptual frameworks are needed in order to assess continuity and discontinuity between the two stages of democratic evolution. Ancient democracy, e.g. in Athens, became the modern liberal and representative democracy, and now a 'third great transformation' of democracy[4] in the post-national and informational political constellation would be in the offing. Can we claim, from a normative perspective, that we are witnessing the commencement of a new kind of (democratic) public sphere? Is there something specifically 'democratic' in the kind of changes we are facing?

By turning back to our case study, we can easily recognize a clear dissonance between protesters perception of the movement and its political significance.[5] Behind the enthusiasm, we find a phenomenon that is hard to grasp because of its ambiguity. There are, at least, three main symptoms of instability which deserve our attention.

The first problem is the protesters obstinate apprehension about the consistency of their action. They expressed the need to clarify what they were demanding, because in fact there was no previous agenda, no ready-to-use design of what 'real' democracy should 'really' look like. Some considered these worries to be a sign of authenticity and meaningful commitment, while other regarded them as evidence of ingenuity and disinformation. There is something paradoxical in this situation. After days of talking, and despite the 'alternative' attitude that constantly prevailed in the assemblies, the movement adopted a very conventional list of proposals: electoral law reform in order to introduce open lists in the elections, more attention to the fundamental rights recognized in the Constitution, abolition of unjust and discriminatory legal norms, income tax to defend the poorest, abolition of privileges for

[4] Robert Dahl, *Democracy and its critics*, Yale UP, New Haven 1989.
[5] Obviously, this assessment should be contrasted with observational data that are not available. However, the overall impression is that the new circuit of alternative participation is not as 'independent' as we might assume from the traditional political processes. Realistically, we could say that it is one of its many reflected images. As a matter of fact, the movement was shaped by the proximity of the elections, which excited the media and brought attention to the discontent in the public.

politicians, rejection and social condemnation of corruption, control of banking activity and financial markets, participative and direct democracy in which citizens can take an active part, dismissing of nuclear power plants, etc. In its anxious search for 'concreteness' ─ they wanted 'real democracy, right now', 'Sol-utions, right now' ─ the (alleged) revolutionary character of the movement seemed to vanish. The illusion of immediacy, always powerful on the net, became a dangerous snare: it opened the way to frustration. The easiest reply to such an overdose of political romanticism, on Twitter or otherwise, with a simple gesture of the hand, could be to say: 'You see: it is worthless!'

The second problem is the need for organization, clearly perceived by the protesters. Reminiscent of old communist fantasies, people at the camp created from the outset a number of 'commissions' in order to manage the occupation of the Puerta del Sol and other places throughout the country. This search for 'organization' is closely related to the virtual dimension of the movement. In the text quoted above, our witness talks about the responsibility of experts, technicians of the web who have the expertise to produce the instruments needed ─ in protesters' words ─ to 'ponder the common' (sic!). This recalls a tricky aspect in the standard theory of democracy. It is not as easy as indignados believed to develop discursive tools to 'balance' interests and values within the domain of public reason.[6] But, every complication seemed out of place at the camp site. People were persuaded to talk 'freely'. They thought to have learned from the net how to organize communication in a 'natural' way. 'The Internet is on the street'. It is not difficult to understand why, as soon as emotional tension started to decline, 'spontaneous' organization faded and blogs became outdated. 'We are moving to the neighborhoods', 'we will camp into the consciousness', said the last indignants when the camp was dismantled.

The third problem is related to the expressive nature of the movement. Willingness to participate in a potentially boundless arena pushed rational argumentation into the background. Network communication is characterized by the constant and arbitrary mutation of interpretative frames. There is little room for giving and taking reasons. Communicative performances are mostly reduced to their iconic value. It is worth observing, at this point, that there are many differences between the former 'new' social movements and the ones emerging today in the infosphere. In the previous generation, political claims retained a certain degree of homogeneity, as long as they were related to the demands of specific (marginalized) groups, with their own interests. Those movements spoke on behalf of the general interest, i.e. as they said, on behalf of the 'common' good. On the contrary, what we

[6] John Rawls, *Political Liberalism*, Columbia UP, New York 1996.

have now is a situation that can be described ─ in Habermas' terms, but well beyond his intentions[7] ─ as a world of 'communication without subject'. In our example, we may ask: who are 'they', the 'indignants'? Are the individuals who were present at the rally ─ with their private interest and desires, experiences and rights ─ the same 'persons' when they enter the virtual space or go to the ballot box? I think that the answers to these questions are not far from obvious. Behind whatever the protesters do, behind every action performed in the street or in the net, in the private or in the public realm, there is a shifting hypertext that modifies its meaning.

IV. Framework: ascending legitimization and material culture

In a case like the one we are talking about an assessment that focuses exclusively on short term consequences would be superficial. It would be unwise to only consider massive changes occurring in communication devices, amazing ease of informative dissemination, increased opportunities for participation or the improved performance of agencies in public administration. It would also be simplistic to be seduced by the novelty and assert that technological revolution leads directly to the birth of a 'new' public sphere.

In what follows some of the characteristic aspects of our case study will be identified and set in a broader context. The purpose is to explore the protesters' attitude towards the 'democratic' character of the new infosphere. We must focus on citizen's self-determination[8] so as to identify three basic structural elements of every democratic public sphere: (1) the *subject* ─ that is the 'public' who is supposed to participate; (2) the *rules* which govern the process of opinion- and decision-making; and, finally, (3) the *practices* that characterize the functioning of democratic society.[9]

V. A phantom public and a de-structured community

In a dispersed political network, like that of the indignants movement, what is the citizens' role in a democratic public? As we already know, indignants did not feel represented by

[7] Jürgen Habermas, *Between facts and norms*, MIT Press, Cambridge 1996.

[8] The basic condition of political equality without which can say that there is no democracy at all; see, among the many others, Michelangelo Bovero, *Contro il governo dei peggiori. Una grammatica della democrazia*, Laterza, Roma-Bari, 2000.

[9] The background to understand our case study is the disturbing inconsistency between frameworks of political communication and the 'material culture' which determines the transition to the 'Networked' society. Peoples' demands and hopes do not flow into the Web of 'water channels', which regulate the 'stream' of political power. Note, by the way, that adjustments between practices and material resources do not go in just one direction. Ideals and values behind political action are not independent from social, economic and technological conditions of the environment and, vice versa, the material environment is partially related to culturally determined behavior patterns. For an approach to the concept of 'material culture', Fernando Broncano, *La melancolía del ciborg*, Herder, Madrid 2009.

conventional democratic institutions. But, what alternatives do they see? The virtual agora should not be compared with that of the ancient Greeks, or with that of the enlightened civil society that flourished in the early Modern Age, and not even with the 1848 revolutionary assemblies that took place in Paris. In the network society there is a far-reaching trend towards fragmentation that should be considered. There could be many kinds of virtual communities, but they all are going to be fragmented communities of dispersed selves. This is a long-lasting topic in contemporary sociological literature[10], as well as in democratic theory.[11] My observation here is that: public that emerged in our case study was not *substantially* different from those fragmented and dispersed 'phantom publics' we had in the old days of mass politics.

Indeed, the central features of our virtual public replicates those that Walter Lippmann pointed out in describing the state of public opinion in the early 1920s.[12] Following Lippmann's suggestions, it is unlikely that cyber-citizens may have a strong political commitment, since they do not have enough information to deal with the huge amount of data offered by the Internet. Far from fortifying the public spirit, the informational overload is likely to produce a defensive reaction. Citizens are once again reduced to ignorance, a new kind of ignorance, and forced to withdraw from the public arena. The rational response is to become 'deaf' to unbearable informational opportunities, just as the attention to the facts and the appetite for theory is not unlimited. Modern society, says Lippmann and we can easily echo his remark in the context of the Net-society, is not transparent, at least not to everybody. Partial sections within society are visible to another sections, series of events are intelligible for particular groups, but not for others, and life is too short to pursue omniscience.

So, what is the main difference between the public in mass-society and the one in the net-society? There is more than one difference for sure, and this is not the right place to summarize a whole century of public opinion studies. Nonetheless, I will try to outline a crucial change we are dealing with, stressing not only the inadequacy of Lippmann's analysis, but rather the weakness of the traditional responses he received from adversaries, advocates of participatory democracy. In his famous reply, John Dewey[13] faced the difficulties raised by Lippmann arguing that the deep inconsistencies between patterns of socialization and material progress in industrial societies would disappear once the migration from the Great Society to

[10] Z. Bauman, *In search of politics*, Stanford UP, Stanford 1999; Ulrich Beck, *Individualization*, SAGE, London 2002.
[11] Robert Putnam, *Bowling alone. The collapse and revival of American community*, Simon & Schuster, New York 2000; Donatella Campus, *Comunicazione politica*, Laterza, Roma-Bari, 2008.
[12] Walter Lippmann, *The phantom public*, Harcourt, Brace, New York 1925, *passim*.
[13] John Dewey, *The public and its problems*, Holt and Company, New York, 1927, *passim*.

the Great Community took place. Given the disintegration of small communities that provided psychological stability to individuals, and realized the proliferation of amorphous and inarticulate, fuzzy and scattered publics, Dewey faced the problem ─ 'primary' and 'essentially intellectual' ─ of the making of a democratic audience. He assumed that 'ties' that bind men in action are numerous, strong and subtle enough to sustain human communication. And this is precisely the point. In the Networked society, the tools used to construct a democratic public are becoming ever more inadequate than they were in the early 20th Century. Mass-media has been radically challenged and has given up its educational goals. 'Physical tools' for communication have been enhanced to such an unimaginable degree, but thoughts and aspirations have never become ─ as protester hoped ─ truly 'common'. Rephrasing Dewey, the 'public' remains eclipsed and formless, lost in a spasmodic search of itself, embracing its shadow rather than its substance.

Previous observations can be summarized as follows: there can be no democracy without a public. Is it thus reasonable to claim that the 'indignants' movement is the 'real' public that lies behind a 'real' democracy? Let us answer this question by following Dewey, once more. In *The public and its problems* Dewey argued that communities can be stable without being static, so they can evolve without disintegrating. In a similar way, it could be argued that, in the present day, the innumerable and complex flows of virtual associations can converge in a space in which the many particular experiences and the various conflicting interests could be challenged and discussed, fueling smaller and intimate unions of human beings who live in close contact with each other. This sounds like the utopia of a Virtual Great Community. Is it an adequate description of what is really happening? And if not, what is left?

Dewey pursued a dream of commonality in which stabilization of the public was ultimately located at the local level, in the short distance, where face-to-face communication would still possible. He was persuaded that happiness can only be found in the enduring ties with others, where interpersonal links go beyond the conscious experience to form an enduring endowment. Needless to say, this is an experience that cannot be associated to the instant and ephemeral encounters that our 'indignados' depicted. It is true that protesters camped out at the Puerta del Sol, with the revolutionary charm of the 'first time', thought that they had found that magic that sometimes springs from 'face-to-face' encounters. But these are not the kind of long-lasting and profound commitments Dewey was talking about. We live in a time of instant surfing. The 'Technological era' is increasingly far from being 'absorbed' into a new 'human era' as the one Dewey envisioned, in which the public can solve its most urgent

problem: that of finding and identifying itself, revealing a completeness, a variety and freedom that is unseen in present social associations.

Actually, I would add, 'community' is not the most pressing challenge in contemporary democracies, but instead the aspiration of creating an 'auditorium' for significant communication, a 'forum' in which communicative actions can be conducing to 'understanding'.[14] Putting aside moral and technical issues about communication, what is needed is to clarify what reasons citizens may have to communicate and to make sense, in a critical way, of the information that circulates in the communicative space. Without that motivation, voices tend to accumulate and overlap randomly, becoming *e-noise*, and access to information and transparency ─ the great political values, and hopes, of the infosphere ─ are likely to be neutralized. Without a *democratic public*, information cannot circulate and costs of selection of information increase exponentially, becoming untenable for individuals. In that situation, cyber-cascades and echo-chambers proliferate[15], and polarization of opinion is doomed to become endemic. The digital divide is no longer between those who are connected to the Web and those who are not, but is an *internal gap* between who have the know-how for surfing on the Net, putting data into contexts, and the massive and disseminated people of data consumers, confined to the remote periphery of a structurally asymmetric communication system.[16]

VI. The movement's voice and its representation

The second stage in the construction of a democratic infosphere regards political representation. It has been proved in history that without a 'constitution', i.e. a set of publicly recognized rules which determines who governs and how, democratic government cannot be achieved. It is a conventional point in literature that, in a context of increased social complexity and institutional ungovernability, those rules tend to become ineffective.[17] And it is obvious that massive dissemination of the ITCs can multiply these effects.

Once again, indignants' motto was, precisely, 'We are not represented'. They felt that politicians did not speak in their name, but also that others could eventually do better. Early on, the movement raised the debate about the different ways to institutionalize participation,

[14] I borrow these terms from Chaïm Perelman, *Traité de l'argumentation: la nouvelle rhétorique*, PUF, Paris 1958; Jon Elster, The Market and the Forum, in: *Contemporary political philosophy*: an anthology, eds. R. Goodin, P. Pettit, 1997; and Jürgen Habermas (note 7).

[15] Cass Sunstein, *Gong to extremes. How like minds unite and divide*, Oxford UP, New York 2009.

[16] Here my nearest references are Cass Sunstein, *Republic.com 2.0*, Princeton UP, Princeton 2009; Matthew Hindman, *The myth of digital democracy*, Princeton UP, Princeton 2009; and Manuel Castells, *Communication Power*, Oxford UP, Oxford 2009.

[17] For a survey on democracy and complexity, see Danilo Zolo, *Il principato democratico*, Feltrinelli, Milano 1996; James Bohman, *Public deliberation: pluralism, complexity and democracy*, MIT Press, Cambridge 2000.

but their responses were not particularly original: open lists, proportional representation, anti-corruption rules, elimination of privileges for politicians, and effective separation of powers. More important than this is observing how the movement insisted in subscribing the ideal of *specular correspondence*, according to which a political system is 'more' democratic when it is able to 'reflect', like a mirror, the will of the people.

The fundamental trouble of representation ─ the question of whether and how it is possible that the will of the 'multitude', which is by definition 'absent', could 'appear' and become 'present'[18] ─ has not been completely resolved despite the range of institutional resources developed over the last two centuries. The significant point here is the following: the protesters' narrative was not able to recognize the structural change that occurred in the public sphere when a centralized scheme of legitimization ─ based on the central role and the supremacy of the legislature ─ was replaced by a radically decentralized and horizontal scheme of decision-making (and law-making). When the focus of democratic will disappeared, the 'mirror' people used to view their own image reflected into disappeared as well. Thus, the presence of the new ICTs is just one among the several factors, perhaps the trigger, but not the only relevant factor, that leads to a change in political representation.[19] Representation evolves in parallel to the transformation of 'material culture', that is according to economic and social infrastructure, institutional apparatus, instruments of social control, channels of production and reproduction of knowledge, and so on.

A brief survey of the history of political ideas proves that point. There is no need to explain the reasons why the classical model of representation, coming from Burke and Sieyès, declined with globalization. In the old days, the 'natural' representative ─ the 'best' men of each territory and each group of interest ─ deliberated with their peers to discover the 'real' national interest. But, can we assert that something akin to a general will awaiting to be 'discovered' really exist? Likewise, the proposal of John Stuart Mill, with his faith in the educational virtues of the Supreme deliberative body, faces similar worries. In a situation of high social complexity, what reasons could we have to assume that the 'best' interest of a part of society, is going to be compatible with the interest ─ or the happiness ─ of the other parts? Moreover, today the standard liberal model, stretching from Madison to Schumpeter, is not less controversial than the participative one. Even in the case of Schumpeter, who is always skeptical on this issue, a certain degree of epistemic competence is needed. Citizens should be

[18] Here the standard reference is Thomas Hobbes, *Leviathan*, Ch. 16.
[19] On the different layers of democratic representation, Jane Mansbridge, Rethinking representation, in: *American Political Science Review*, 97 (2003), 515-528.

able to identify who are the best administrators of their interests. This is the minimal condition for the exercise of an effective control over representatives' performances.

In the network society, it seems to me that the crucial point is to know if citizens can make use of the new communicative potential they have in the infosphere, avoiding the current trends towards personalization and spectacularization of politics, which characterize present audience democracies.[20] It is possible to emphasize the contra-hegemonic nature of the new virtual and spontaneous mobilizations, but we should not forget that spaces of communication can be easily 'colonized' by narratives that simply replicate the contents found in the conventional mass-media system. Power is likely to be destabilized in an environment with a highly fragmented public, unable to satisfy the primary demands of social integration. Finally, this is the only acceptable interpretation we can make of the *hopeless aphasia* of the indignants, who have proven to enjoy a remarkable capacity of producing powerful icons, but yet are absolutely trivial when they try to articulate their own discourse. This aphasia must not be attributed to the evil will of a system which hides information and conspires against the people.[21] The tangle is elsewhere. Purely *horizontal communication* faces its own limits when it fails to produce any substantial change in the (unequal) distribution of 'communicative power'. What is at stake in the transition to the mass-society to the democratic infosphere is a problem of authority: the anarchic proliferation of Networks does not make us more free and equal.[22]

VII. Epistemic snares in the making of a democratic (info)sphere

The reading of the many blogs that flourished around the 15-M provide us an exhaustive ─ and, frankly, a bit boring ─ picture of the 'voices' the system supposedly fails to represent. Unfortunately, the lack of *quality* cannot be compensated by increased *quantity*. In response to that criticism, emphasis can be put in the affirmative value of participation. It is a good thing, it must be said, that everybody talks, whatever they say, because people 'feel' better if they do talk and, in the long run, all that 'stuff' reinforces political trust. However, the disproportionate emphasis on the therapeutic and iconic dimension of participation challenges

[20] Bernard Manin*, Principles of representative government, Cambridge* UP, New York 1997.

[21] For Networks and conspiracies, see Peter Ludlow, *Rethinking Conspiracy: The Political Philosophy of Julian Assange*, at http://commonsenseatheism.com/wp-content/uploads/2010/12/Ludlow-Rethinking-Conspiracy-the-Political-Philosophy-of-Julian-Assange.pdf (accessed: February 2th 2012).

[22] These questions lay behind the problems of political legitimacy in the infosphere, and refer to the practices of recognition of epistemic authority. The emergence of the ICTs have already modified the balance of authority between the single citizen ─ the individual who surfs the net, the neighbor we are talking with by the corner, the academic or the expert who writes on the mass-media, each voter that express his opinion ─ and the many intertwined epistemic communities who has the necessary resources to ponder information and express a reliable opinion. The catalog of issues about which the individual have 'the last say' is becoming shorter and, correspondingly, the power of institutions that administrate information in becoming larger.

the quality of the democratic process. If the only valuable thing is to talk, and nobody cares about what the others say, the distance between what people 'merely' say and the 'serious' conversation among the experts is doomed inevitably to increase. And this is not ─ I suppose ─ what supporters of *e-participation* are looking for.

At this stage of the argument we should carefully reflect about ignorance and, especially, about the new 'forms' of ignorance that emerges in the information society. It is not ignorance that the network communication system can correct by itself, increasing the volume of information, improving the tools of recovery or the performances of communication facilities. What characterizes this form of ignorance is a shift in the sources of epistemic authority.

Again, let us take a quick look at the past: Ignorance and education are crucial factors in the development of democracy ever since the Greeks. Without going back that far, we should stress Rousseau's thesis about the infallibility of the general will, which implies a deep epistemological and educational commitment: every citizen, if properly educated, could make the 'right' decision that all members of a democratic society would accept. The mathematical reframing of this stance leads to Condorcet's theorem. The hypothesis is that citizens ─ each single citizen or the average citizen ─ are more likely to be right than to be wrong in judging matters that affect their interests. The liberal translation of this idea focused on the capacity of each single citizen to be the best judge of his own affairs. The elitists later criticized this assumption by emphasizing that, in modern societies, Government should be in the hands of technocrats and educated bureaucrats with a strong sense of responsibility. For the rest of the people it is perfectly rational to calculate, according to the circumstances, what the appropriate level of *disinformation* in public affairs should be. Information is a costly good that everybody cannot afford.

Turning back to the infosphere, my suggestion is the following: the ideal of a network of communication, horizontal and anarchic by 'nature', purely transparent, generates a form of ignorance which is neither blameworthy ─ the ignorance of who consciously remains in lifelong immaturity, in Kantian terms ─, nor educated ─ the Socratic ignorance ─ as when someone says: 'I do not think I know what I do not know' ─, but rather rational.[23] The information overload to which 'netizens' are exposed bears a radical challenge for democracy: the individual ─ the citizen, the voter ─ encounters an increasing difficulty to elaborate his or her own opinion. Democracy is 'dying for information'. The overwhelming increase of information created by the Web thwarts the emancipatory potential that could be attached to *e-democracy*. This is so both from the point of view of the individual ─ what

[23] For a typology of the forms of ignorance, see Ernesto Garzón Valdés, Algunas reflexiones sobre la ignorancia, in: *Isonomía* 11 (1999), 129-148.

would participation mean if there is no autonomous opinion? ─ and from the point of view of the political system, since institutional devices of transparency are systematically overridden by the abysmal difference between citizens who have the resources to manage the information, and citizens who do not. The key is the capacity to transform ('upgrade') information into knowledge, assessing the 'truth' of the messages, the 'soundness' of opinions, elaborating significant narratives, those are needed to 'give an account' of data and 'match' the experience.[24] And this is precisely what indignants movement lacked.

VIII. Deliberation, agency, and motivational force

What are then the prospects of democratization on the blogosphere? How democratic are experiences of participation like those we are dealing with? I already suggested that these questions should be answered by looking at some structural features of a democratic public sphere: the social ties that transform the multitude into a public, the rules of according to which someone is authorized to speak on behalf of the other, and the epistemic conditions needed for citizens' opinion to become an autonomous opinion.

Without straying away from the Spanish example, I shall indicate just two main perspectives we may use to analyze the movement and assess its significance for the improvement of democracy. Then, I will point out two conflicting forces which are going to determine the final outcomes.

On one hand, the first perspective concerns the opportunities that political and social actors may have to *democratize the Network*, participating in formal or informal, conventional or non-conventional manners. There is a delicate question here, since not every enhancement of the movement can be interpreted as a 'triumph' of democracy. This is no more than a prejudice, which appears in two different ways. First, in the populist version, democratization originates in the citizens' right to access the places in which political authority resides, the right to have a 'voice' and be 'heard', in accordance with the idea that all views are equal and decisions should be taken by simply counting heads. Second, in the elitist version, the aim is to enhance discussion within the different partial sections of the fragmented network, in government institutions, civil society organizations, epistemic communities, etc., because ─ this is the point ─ educated deliberation leads to the *right answer*. Elitist encourage control among peers and foster the leadership skills of the best, the few who 'listen' and 'respond' to

[24] I rely on Luciano Floridi, Semantic information and the network theory of account, in: *Synthese* 184 (2012) 3, 431-454.

the outsiders' interests.[25] In this situation, the only information that is due to the public ─ and the only information the system is rationally required to give ─ is that which allows them to understand how well expert communities do their work, since there is a general need to preserve peoples' trust in the system. To summarize, the idea of a natural tendency that leads spontaneously from social movements to democracy is misleading. A movement is democratic or not depending on its capacity to empower citizens' autonomy.

On the other hand, we should take into consideration the potential of partial deliberative publics, like those that flourish within and around the movement, to produce legitimacy *by themselves*, *auto-referentially*, *without the support of a comprehensive public sphere*. There is one more disturbing prejudice to confront here, which is the faith in the horizontal and anarchic proliferation of self-referring publics, lacking any external control. If the give and take of reasons loses its distinctive openness, 'public' conversation fails to produce legitimacy. The point here concerns not only the 'atomization' of the individuals in the Networked society, but also the informational basis of legitimacy. Confined within themselves, lacking any external feedback, fragmented communities begin to *spin in the vacuum*. This observation could be taken as a general rule. Consider, on a small scale, the conversation among citizens who only see the 'world' through the limited number of links that appear on their screens. There is no need to insist in how damaging this could be for a democratic process of political self-determination. But consider as well, on a larger scale, the functioning of the global network of financial markets, which is extremely isolated from its environment. This kind of network is mainly responsive to the information produced by itself. This can make the system stronger, but also can determine its failure. Actually, far from being a marginal cost, offset by the overall benefits, the absence of reliable external control in the long term can jeopardize the stability of the system. The turning point is when the increased volume of internal information begins to intensify uncertainty and system instability, that is, when the system loses the capacity to control its own information. In the political realm, the lesson seems to be that democracy requires information, but the increased complexity arising from multiple and dispersed publics make democracy fragile.[26]

Therefore, instead of offering a steadfast answer about democracy in an latest social movement, like the Spanish 'indignados', two basic dimensions of analysis should be explored: capacities and openness. Any further assessment needs to take into consideration two opposite *motivational forces* as well; forces that lead our Networked societies in the

[25] For an appraisal of these technocratic positions, Stephen Turner, *Liberal democracy 3.0*, SAGE, London/Thousand Oaks/New Delhi 2003, 125-6.
[26] Fernando Broncano, *Entre ingenieros y ciudadanos*, Montesinos, Madrid 2006, 47.

opposite directions of a strengthened and a weakened democracy. On the one hand, there is a compulsion towards an *authoritarian regression*, be it technocratic, populist, or both. Here the temptation is to restrict the anarchical proliferation of virtual communication, *compressing* the public space, in order to balance the information overload that threatens social integration. This does not necessary means to reduce the volume of information available to citizens. It is sufficient control the instruments they need to *select* information. The cost we pay in following this strategy is the surrender of political equality. On the other hand, we have the force that comes from the *citizens' malaise*, and particularly, from the feeling of a systematic mismatch between their everyday experience in a world saturated with information, and the interpretive frames used to describe peoples' desires and aspirations, interests and needs. Which one of these two conflicting forces ─ the one that leads to a new authoritarian involution and the one that fosters democratic conversation ─ are going to prevail? This is not a suitable place for prophecies.

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From Scepticism to Mutual Support:

Towards a Structural Change in the Relations between Participatory Budgeting and the Information and Communication Technologies?

Abstract: Until three years ago, ICT Technologies represented a main "subordinate clause" within the "grammar" of Participatory Budgeting (PB), the tool made famous by the experience of Porto Alegre and today expanded to more than 1400 cities across the planet. In fact, PB – born to enhance deliberation and exchanges among citizens and local institutions – has long looked at ICTS as a sort of "pollution factor" which could be useful to foster transparency and to support the spreading of information but could also lead to a lowering in quality of public discussion, turning its "instantaneity" into "immediatism," and its "time-saving accessibility" into "reductionism" and laziness in facing the complexity of public decision-making through citizens' participation. At the same time, ICTs often regarded Participatory Budgeting as a tool that was too-complex and too-charged with ideology to cooperate with. But in the last three years, the barriers which prevented ICTs and Participatory Budgeting to establish a constructive dialogue started to shrink thanks to several experiences which demonstrated that technologies can help overcome some "cognitive injustices" if not just used as a means to "make simpler" the organization of participatory processes and to bring "larger numbers" of intervenients to the process. In fact, ICTs could be valorized as a space adding "diversity" to the processes and increasing outreach capacity. Paradoxically, the experiences helping to overcome the mutual skepticism between ICTs and PB did not come from the centre of the Global North, but were implemented in peripheral or semiperipheral countries (Democratic Republic of Congo, Brazil, Dominican Republic and Portugal in Europe), sometimes in cities where the "digital divide" is still high (at least in terms of Internet connections) and a significant part of the population lives in informal settlements and/or areas with low indicators of "connection." Somehow, these experiences were able to demystify the "scary monolithicism" of ICTs, showing that some instruments (like mobile phones, and especially the use of SMS text messaging) could grant a higher degree of connectivity, diffusion and accountability, while other dimensions (which could jeopardize social inclusion) could be minimized through creativity. The paper tries to depict a possible panorama of collaboration for the near future, starting from descriptions of some of the above mentioned "turning-point" experiences – both in the Global North as well as in the Global South.

Keywords: Participatory Budgeting, ICT, Information and Communication Technologies, Participatory Democracy, the Internet.

I. Introduction

Increasingly, the concept of "citizens' participation" is becoming a sort of "*buzzword*" allowing very different meanings, linked to the different typologies of actors (from social movements to international financial institutions linked to the Bretton-Woods consensus), to refer to it when discussing the need to restructure both public policies and strategies for development. What Evelina Dagnino described[1] as a "perverse convergence" between radically progressive and substantially conservative approaches set in a framework of widespread neoliberal politics is somehow a mechanic consequence of that "participatory imperative," which Blondiaux and Sintomer[2] considered one of the pivotal philosophic shifts demanded by a highly complex society marked by a growing mutual mistrust between citizens and representative institutions, and by a gradual increase in social polarisations which everyday raise the number of non-citizens who inhabit our territories.

Within such a framework, is understandable why in the latter half of the twentieth century, the consolidating of democracy as a political regime in Western societies (grounded on liberal values and predominantly operating by means of representative democracy procedures) has gradually accepted to co-exist with other democratic practices. Of the latter, many governments propose to reverse processes that had led to the gradual separation of politics and citizens, opening up windows for direct democracy or throwing their weight behind a mix of the latter and the functioning of representative institutions, which – through mutual support – may reinforce both in the face of market predominance, which affects most decision-making in public life. With the mechanisms created, there has been interest to adequately respond to the crises in governance that translate into crises in confidence strategies and of the State legitimacy. It is in this context that countless forms of democratic experimentation or 'technologies of participation'[3] have been developed. These allow new roles for citizens, associated with projects and programmes traditionally carried out from within the State – which during a given historical period became the Welfare State in the North and the Development State in the South – and has had as one of its consequences an opening up to intervention experiments and citizen organisation 'backed by

[1] E. Dagnino, Confluência perversa, deslocamentos de sentido, crise discursiva, in: *La cultura en las crisis Latinoamericanas*, Grimson A. (org.), Buenos Aires, Clacso, 2004

[2] Y. Sintomer, L. Blondiaux (2002) L'impératif délibératif, in : *Politix – Revue des sciences sociales du politique,* 15(57), 17-35

[3] J. Arriscado Nunes, *Da democracia técnica à cidadania cognitiva: a experimentação democrática nas "sociedades do conhecimento"*, working paper. Coimbra: Centro de Estudos Sociais, 2006

mobilising practical know-how and the building up of a form of knowledge guided by prudence and by attention to the consequences of the action'.[4]

The above-mentioned process of "hybridisation" was shaped in parallel with another cultural shift linked to the area of technology, where development and diversification of information and communication technologies (ICTs) led to the expansion of the so-called 'information society', posing a new set of questions and challenges to politics, from the emergence of new identities and interest groups to new forms of political action linked to several different social and political players.

The possibility of coupling a greater depth of democracy to the development of new technologies led (in extreme situations) to the creation of a new paradigm, so-called *electronic democracy* (or *E-democracy*), whose 'ontology' might be construed as 'apparent' to the extent that its designs are influenced by the different concepts of democracy.[5] This "electronic democracy" could be conceived as the set of democratic processes which enable citizen participation by means of the use of information and communication technologies and which are linked to fundamental issues about the nature of government and the decision-making processes occurring within the State, and also in the latter's relation to citizens. In the international literature, as well as in the common sense of the majority of political practices, it is intended as a paradigm which differs from the concept of *electronic government* (or *E-Government*). In fact, the latter regards governments' use of information and communication technology as part of an endeavour to modernise and rationalise the provision of public services for users, improving service quality, cutting costs, and providing services which could not be effected under the traditional model.[6] What both concepts have in common is the valorisation of information-providing processes to community members, but the two models are differently located in the progression of the "participatory ladder."[7] In the *E-Government* paradigm they are centred on

[4] Idem, as in footnote 3.

[5] T. Addison, A. Heshmati, *The new global determinants of FDI flows to developing countries: the importance of ICT and democratization*. Helsinki: UNU/WIDER, 2003; I. Horrocks, L. Prachett, *Electronic democracy: central themes and issues*. Available at: < http://www.clubofamsterdam.com/content.asp?contentid=228>, 1995 last Access: 3rd September 2011.

[6] F. Bannister, N. Wals, *E-Democracy: small is beautiful?,* 2002 Available HTTP: http://www.tcd.ie/StatisICTs/seminars/semcontent/towards2002/frankbannister2.doc (last access: November 8th, 2011); P. Graft, J. Svensson, Explaining e-Democracy development: a quantitative empirical study', in: *Information Polity*, 11, 2006, 123-134

[7] S. Arnstein, S., A ladder of citizen participation, in: *Journal of the American Institute of Planners*, 35: 216-224, 1969

information, communication and consultation, while in a real *E-Governance* perspective they would privilege strategies of co-decision, co-evaluation and co-management.

Debates hinging on the effects and potentialities of the *association* between a new creative use of ICTs and innovative practices of directly involving citizens into policy decision-making have been tied to the two great families of expectations. On the one hand, positive expectations stemming from the potential contained with the linkage between democracy and ICTs refer to the redistribution of power, by means of a broadening of democratic participation in a kind of 'virtual public sphere', and also by the possibility of increasing transparency in government and its control by citizens. On the other hand, growing negative expectations ensuing from the realisation that very often, instead of contributing to the redistribution of power, E-democracy results in an even stronger concentration of power in the hands of few institutions or groups, re-invigorating market predominance or the centrality of the State and its dominant position, to the detriment of the other players in the political system and in society[8].

Taking as a departure point the contradictions that emerge from a number of relevant experiences centred on the building of innovative relations between representative democracy and participatory democracy, this paper aims above all to analyse certain facets of this ambivalent relationship at a time when to these relations must be added the challenges generated by the broadening of means of communication and by the creation of new, possible spaces for political participation, which go beyond traditional 'formal' processes, especially when they relate with the social-networking sphere. More precisely, my reflections will be focusing on a specific innovative "arena" aiming to build new relations among representative democracy, participatory democracy, and new technologies, which, in the past few years, has become prominent, acquiring its own status within the framework of institutional experimentations with Participatory Budgeting (PB).

The paper takes as a starting point a scenario in which relations between the State and civil society are tangentially characterized by the principle of 'double delegation'[9] – which translates into a separation between specialists and lay persons, and between representation and participation. In this perspective, it moves from the hypothesis that Participatory Budgeting experiences are a clear example of how the existence of strong social mobilisation and the convergence between State-associated political projects and civil society allow for consideration

[8] K. Hacker, J. Djik, *Digital Democracy, issues of theory and practice*, The Netherlands: Sage Publication, 2000
[9] M. Callon, P. Lascoumes, Y. Barthe, *Agir dans un monde incertain: essai sur la démocratie technique*. Paris : Seuil, 2001

of democratic processes which may articulate representation and participation in a constructive and innovative way and, at the same time, create spaces for citizen empowerment and involvement in domains traditionally viewed as the 'reserve territory of experts'.

Besides these reasons given for the choice of PBs, two further reasons must be added: Participatory Budgets are very *clearly defined objects* in regards to the features and presence of technical contents, and have been multiplying and deepening, both numerically and qualitatively, in the world context[10]. Indeed, PBs – mass participatory practices applying the method of community debate (and possibly co-decision) to budget portions of local public, infra-municipal or supra-local institutions – respond well to these challenges to clarity, pertinence and meaning.

This paper is arranged into three parts. The first aims at situating, succinctly, PB experimentations in the arena of debate around the intensifying of democracy and – more specifically – on the association between democracy, technology and participation. The second part centres on the description of some experiences which offer proof of gradual intensifying of relations between PB and the use of ICTs, with the aim of offering readers concrete data of a switch from a model of relational grammar which has tended to 'subordinate' the use of technology to the building of new arenas for public deliberation (usually clustered around the physical co-presence of the different players involved) to a new paradigm of mutual collaboration. The cases presented feed the concluding section of the article where (also incorporating a brief reference to other PB mirror cases) a number of possible (partial) conclusions are presented. They leave issues open to further debate and challenges for in-progress reformulation on linkages between new technologies and broadened experiences of mass participation in building public policies for transforming and managing a territory.

The author wants to underline that there were several reasons for choosing examples like the case of Belo Horizonte (BH), the Brazilian metropolis whose PB process started in 1993, or the Portuguese cases of Lisbon (2007) and Cascais (2011) and the PBs of South Kivu in the Democratic Republic of Congo (2011). Beyond their 'relevance', in fact, and beyond their capacity of representing – if taken together – an 'evolutionary line' in the application of ICT's to the 'institutional design' of a Participatory Budget, they offer pertinent reflections and innovative

[10] Y. Sintomer, C. Herzberg, A. Roecke, *Participatory budgets in a European comparative approach. Perspectives and chances of the cooperative state at the municipal level in Germany and Europe* - volume II (Final Report - documents), Berlin: Centro Marc Bloch, 2005; Y. Sintomer, G. Allegretti, G., *I bilanci partecipativi in Europa. Nuove sperimentazioni democratiche nel vecchio continente*. Roma: Ediesse, 2009; Sintomer, Y.; Allegretti, G. (2012, forthcoming), *Os Orçamentos Participativos na Europa. Entre Democracia Particiaptiva e Modernização dos Serviços Publicos,* Almedina, Coimbra.

points of view on institutional re-organisation trends which come from countries located in the periphery or in the semi-periphery of the world. With no wish to impose a 'romanticised' view of South-North relations in the field of the critical theory of modernity, the author considers pertinent to choose examples taken from what is often considered 'the *semi-periphery* of the world of knowledge'[11], where PBs took root and shape from the 1990s onwards. In fact, it is in the countries of the South (or in countries regarded as peripheral within the European context, as Portugal) that we may find contexts of greater social polarisation, which bear the brunt, in relative terms, of the digital divide. And – even if it appears strange to say – is often here that a more "daring" use of ICTs in connection to Participatory Budgeting has been attempted, up to now.

II. Placing PB in the heart of participatory process of governance innovation.

What is exactly participatory budgeting? And could this definition and its main features be influential in explaining the "tense relationships" with the use of ICTs in some concrete world experiences? As Sintomer et al. demonstrated[12] through their comparative researches, the definition itself of participatory budgeting is unlikely to generate consensus, especially after the basic principles which shaped the Latin American experiences in the early 90s travelled to other continents and enrooted in several European (as well as Asian and African) countries, merging with other different consolidated participatory and/or consultative traditions, let aside the diverse socio-political contexts[13].

Today, we could generically describe PB as a democratic process in which no-elected citizens directly contribute to discuss and possibly co-decide how to allocate part of a municipal budget or another budget that affects them. Such a description implies that a PB process could be experimented not only in the definition of public institutions' budgets, but also inside cooperative and/or entrepreneurial organizations belonging to the Third Sector as well as to the private sector. Despite this "openness" of its applicability, it must be underlined that the name "Participatory Budgeting" today mainly stands as a definition to be used for pointing out processes whose

[11] Boaventura de Sousa Santos; L. Avritzer, 'Introdução: para ampliar o cânone democrático', in Boaventura de Sousa Santos (ed.), 2002, *Democratizar a democracia: os caminhos da democracia participativa*, Rio de Janeiro: Civilização Brasileira.
[12] Y. Sintomer, C. Herzberg, A. Roecke (2005), note 10
[13] Y. Sintomer, G. Allegretti, C. Herzberg and A. Röcke (2010), see note 10; Shah, (org.), *Participatory Budgeting,* Public Sector Governance and Accountability series, World Bank Publications, Washington, D.C., 2007; M. McNeil, C. Malena, Demanding Good Governance, World Bank Publications, Washington, D.C., 2010.

pivotal aim is to recreate a dialogue with elected institutions, which represent a main difference with other procedures (as the so-called "Community Driven Development" mechanisms in which many international financial institutions and donors are involved) which also discuss budgets of public interest with local inhabitants, stakeholders and other potential beneficiaries, but without creating explicit relations of dialogue with local administrative bodies and institutions.

The doubt that political and academic literature have still not been able to solve is whether participatory budget it is only a "standard procedure", i.e. a "device" marked by clear relations between simple and recognizable factors, or (on the contrary) a series of "principles" which could be locally adapted to the point that they produce processes which are very different one from another. Under this second perspective, participatory budgeting could be possibly seen as an "*ideoscape"*[14], signifying a political model that travels globally but exists through local appropriation, so incrementally transforming the model itself through its concrete localized implementations. If the concrete experiences that got inspired by this travelling model are so diverse, it also depends from the fact that participatory budgeting showed, since the first original Brazilian experiences from the '90s, a wide range of possible goals to be reached, which enlightened a large series of different "meanings" that could be given to its experimentation, according to specific instruments and procedures used to shape its organizational architecture. Somehow, the holistic approach and the conceptual complexity on which the idea of participatory budgeting relays oblige to give attention to the coherence between the declared goals which inspire each PB experience, and the "tools" and "techniques" used to reach such specific aims.

Some recent experiments done by the literature help us to classify PBs. For example, Sintomer, et al. and Sintomer and Allegretti[15] tried to create some "orientation maps" made of "ideal-types" of different families of participatory budgeting: these are strictly related to procedural typologies characterizing each specific process, and to prevalent models of public management privileged in the context where each experiment is inserted (and often converging for experiences located in the same countries). Under a different perspective, adapting the pragmatic proposal made by Fung[16], could be possible to imagine two differentiated "macro-categories" of PB according to a sort of "reading standpoint" of the implementers: (1) the

[14] A. Appadurai, "Global Ethnoscapes: Notes and Queries for a Transnational Anthropology," Interventions: Anthropologies of the Present. R.G. Fox (Ed.). Santa Fe: School of American Research, 191-210.
[15] For Y. Sintomer, C. Herzberg, A. Roecke, *and* Y. Sintomer, G. Allegretti, see note 10.
[16] A. Fung, A Preface to Pragmatic Democracy: Toward Continuous Innovation in Governance (April 4, unpublished working paper, presented in the conference "Participatory Governance and Decentralization, held at the Wilson Center, in Washington DC (9-10 May 2011).

"deontological" and the (2) "consequentialist" ones. The (1) would represent experiences where innovations are valued because "they help to create right relationships among citizens and between citizens and the state", thinking that "democracy worth having simply requires greater citizen participation (participatory innovation), deliberation (deliberative experiments), and rights to information and knowledge (transparency) quite apart from any other effects that these innovations have". As Fung suspects, it is possible that this "deontological perspective" could be imagined as the main strong driver of the explosion of participatory experiments, which look to participation as "a norm of institutional appropriateness". The (2) *consequentialist perspective* would inform those experiences where the democratic innovation look to itself as more or less valuable "according to the extent to which it secures other values that we care about — policies that are responsive to citizens interests, social justice, state accountability, wiser policies, and so on". So, they look as experiences which reify their main objectives through specific tools which guarantee consequentiality and coherence between motivations, aims and results of each specific experiment. These two quotations (among others possible) help to identify the level of complexity that any attempt of strictly classifying PB experiences has, suggesting a possible meaninglessness especially of those attempts wishing to establish a hierarchization of cases based on an absolute "value" of single experiences, which is not closely related to their capacity of transforming the policies and the civic/political culture of the specific context in which any experiment takes place.

The diversity of possible "glances" on specific PB experiences reflects a spread belief of both decision makers and scholars that democratic participatory innovations are particularly important when they address specific failures and democratic deficits in the representative policy making process[17], thus somehow reverting (or completing and intervening onto) some of the "unfulfilled promises of Democracy" launched into the public debate by Norberto Bobbio[18]. In the case of participatory budgeting, such a point of view can influence even the definition itself of PB, as we can notice in the formula commonly used by the English think-thank The PB-Unit while stressing how PB is a process which "entrust a given community the right to decide" on parts of a public budget, so emphasizing the pivotal role that the construction of "mutual trust"

[17] A. Fung, "Democracy and the Policy Process" in: Oxford Handbook of Public Policy, M. Rein, M. Moram, Robert E. Goodin [orgs.] New York: Oxford University Press, 2006, 669-685.
[18] N. Bobbio, The Future of Democracy. A Defence of the Rules of the Game, University of Minnesota Press, Minneapolis (original title "Il future della democrazia, 1984, Einaudi, Torino), 1987.

between citizens and political actors plays in the setting of any participatory budgeting experience.

Due to the proved difficulties of providing any "normative" as well as any "essentialist" definition of a participatory budgeting based on its goals/motivations, is possible to privilege a methodological approach in allowing a more precise characterization of what PB processes consist of. In this article, the definition proposed by the "*Comparative research on Participatory Budgets in a European Perspective"* coordinated by Yves Sintomer with the Marc Bloch Center of Berlin, is adopted. It is mainly built around five criteria which are: (1) the financial and/or budgetary dimension must be explicitly discussed, being that participatory budgeting quite everywhere involves dealing with the problem of limited resources; (2) the city level or a (decentralized) district with an elected body and some power over administration have to be involved, (the neighbourhood level is not enough); (3) it has to be a repeated process (one meeting or one referendum on financial issues does not constitute an example of participatory budgeting, but defines more a simply budget consultation); (4) the process must include some form of public deliberation within the framework of specific meetings/forums (the opening of administrative meetings or classical representative instances to 'common' citizens is not participatory budgeting); (5) some accountability on the output is required, and it could possibly be extended to the control over the implementation phase of what has been co-decided.

Although such a definition was composed for depicting the panorama of institutionally-driven participatory budgets in the European context, thus taking into account their level of slowly-evolving (and often '*light*') experimentalism, such a methodological definition could be extended as a "minimum common denominator" also to other countries and continents, despite in those contexts other elements can frequently connote PBs. So, it is according to a similar perspective that the recent study "*Learning from the South*" (funded and published by the governmental cooperation agency of Germany, 2010)[19] built its world-panorama of participatory budgets, recognizing that the fast transformation and the instability of existing practices, together with the lack of specific studies monitoring the quality of many experiences, make it difficult to exactly count and classify world PBs, even if the progressive expansion of their influence in local context is undeniable.

[19] Sintomer, Y.; G. Allegretti, C. Herzberg, A. Röcke, "*Learning from the South. Participatory Budgeting Worldwide – an invitation to global cooperation"*. *Global Dialog*, nº 25/2010, Bonn: InWent/GIZ, 2010 (versions in English and German)

In this framework, it is worth to underline that another significant difficulty comes when evaluating whether participatory budget are successful — whether on "deontological" or "consequentialist" grounds — being that often the way in which outcomes are produced is not mechanically related just to a particular innovation such as PB, but depends on a complex institutional mix that includes several different participatory innovations (either coordinated among them or not) together with more conventional representative and electoral arrangements[20] which could have different "weight" and levels of performance.

Due to the above mentioned reasons, univocally placing PB – as instruments for political innovation – in the context of the six models of democracy proposed by David Held, is more difficult than it must have been in the early 1990s, when the first experiments took shape in Brazil, within a framework of great tension associated to the democratisation of local government centred around citizen involvement in public decision-making and the idea of the constructive contribution of the 'local' in reformulating national and global strategies. Held's classification includes a construction of ideal-typical models of democracy defined as 'legal, competitive, pluralist, participatory, libertarian and plebiscitory'. The latter three could be contained in what Santos and Avritzer (2002) title 'high intensity democracies'. Especially after the 'return of the caravels'[21], that is, the phase of PB 'experiment massification'[22] – which led to the extending of the South-American example to more than 1,400 cities of the American sub-continent[23], some African and Asian cities, and some hundreds of European municipalities –, the univocal inclusion of PB in a single one of the above mentioned ideal-types becomes more risky, although it is clear, in most cases, that PB tends to fit into 'high intensity' democratic conceptions.

This is due to the fact that PB sets up an 'articulation centre', increasingly key to other participatory experiences, but do not hold any 'monopoly' where possibilities arise for experimenting with innovative processes of citizen participation in public choices. On the contrary, PBs tend more and more to become 'contaminated' and to fuse with other experiments,

[20] Fung, 2001 (see note 16)
[21] G. Allegretti, C. Herzberg, *El 'retorno de las carabelas'. Los presupuestos participativos de América Latina en el contexto europeo,* Ámsterdam/Madrid: TNI Working Paper/FMI, 2004
[22] Y. Cabannes "*72 Frequently Asked Questions about Participatory Budgeting*", UN/Habitat, Available HTTP: <http://www.internationalbudget.org/themes /PB/72QuestionsaboutPB.pdf>, 2003 (last access: 18th December, 2011)
[23] In its updated Portuguese version, the manual *72 Frequently Asked Questions about Participatory Budgeting,* 2009, coordinated by UNHABITAT and authored by Y. Cabannes, takes into account a number of national laws which made PB a 'compulsory' urban management methodology for the municipalities of some countries (Peru, 2003, and the Dominican Republic, July 2007) and highly recommended by national governments, such as that of Venezuela.

'diluting' the features with which they started out, adopting different, consolidated techniques and thus affirming themselves in the collective imagination as 'meta-models', adaptable to different conceptions of democracy which shape numerous practices[24]. The variety of reference political 'horizons', as also the overall and specific objectives that sustain many PB practices, is particularly clear in Europe, as shown by Sintomer and Allegretti[25], evincing, at motivational level, new 'ideal-typical models' for PB adoption in the Old Continent. These relate to neo-corporatist forms (of which the forging of public/private partnerships is also an example) or pursue objectives for building 'participatory democracy', 'participatory modernisation of the public administration apparatus', or simply 'proximity democracy' or 'community development'. Besides, it is impossible nowadays not to highlight the 'entropic evolutivity' and sometimes 'schizophrenia' of PB (Allegretti, 2007), evinced in pan-European comparative research, outlining the fluctuating of concrete practices between different reference political models for each type of experimentation[26].

III. Which new grammar when the use of ICTs connected to PB is concerned?

Adding a new variable (such as the relation between participatory processes and ICTs) to the above discussed variation in the uses and 'ordering' of PB within the different conceptions of 'grand democracy' (to employ a much-used definition in Scandinavia), might – theoretically – complicate modelling of these types of processes. However, experience tells us that in many cases ICT use does not determine new PB 'hybrid configurations'. Rather, it tends to lend new vigour to the main interpretational line of each experiment.

Until now, which kind of place did ICTs have in Participatory Budgeting experiments? As shown in a few articles[27] usually PB has tended to favour spaces for direct meeting among inhabitants and between these and the (political and technical) representatives of the institutional

[24] L. Bobbio, Dilemmi della democrazia partecipativa, *Democrazia e Diritto,* 4, 2006, 11-26; D. Chavez, paper presented at the seminar *Jornadas Internacionales sobre Presupuestos Participativos*, Málaga, Spain, 28/31 March 2007; G. Allegretti, M. Secchi, Les Budgets Participatives (BP) en Italie : une géographie en changement continu, in: *Territoires*, 482, september 2007

[25] For Y. Sintomer, G. Allegretti, 2012, see note 10.

[26] The text by Sintomer *et alii* also presents 'six procedures of European PBs', mapping out (through a hexagonal graph) 'participation typologies' which range from 'participation of organised interest', to Porto Alegre in Europe', through 'Public/private negotiation tables', 'proximity participation' and mere 'consultations on public finances'.

[27] T. Peixoto, *Beyond Theory: e-Participatory Budgeting and its Promises for eParticipation*, in *European Journal of ePractice,* 2009*, accessible at:* http://www.epractice.eu/files/7.5.pdf (last access: 13th December, 2011); G. Allegretti, E. Schettini Martins Cunha, M. Matias, As Tecnologias de Informação e Comunicação na gramática dos Orçamentos Participativos: tensões e desafios de uma abordagem essencialmente subordinada, In: *Anais do II Compolítica*, Belo Horizonte, 2007.

sphere. This was not only due to an overall setting which has viewed PB as a space for rebuilding social ties and interrupted or 'polluted' relations between administrators and citizens, as well as the results of real experiences. But this has proved to be positive also in rebuilding a social pedagogy[28] and a negotiated solidarity[29], even in circumstances where 'concrete results' have not differed widely from that which could have been provided by the traditional exercise of power delegated by competent administrators[30].

In such an overall picture, until at least 2007 the 'grammar' of relations between PB and ICTs has mainly favoured a 'subordinate' position for technologies, in the face of possibilities for wasting energy and resources (human and economic) in activating 'hot' methods of interaction among territorial players. Viewed as a 'cold medium' for interaction (on a similar level to referenda or questionnaire-driven or telephone surveys), ICTs have been 'relegated' to the fringe of many participatory processes (and especially PBs), with proposals being submitted by real-time meetings to 'after-the-event control'[31]. This has also occurred in situations where ICT use was explicitly evaluated[32] as a 'social inclusion' factor regarding persons or groups (commuters, families residing far from the centre where meetings are held, the sick or mobility-challenged) whose timetables or rhythms do not dovetail with public offline meetings, as in the case of Modena, Italy. There – in 2006 – a pilot project integrated in the municipal system of electronic information, *Unox1*, provided online streaming for some meetings, and some temporal 'pauses' to allow for interventions and suggestions which could later be presented for presence-driven debate taking place in the PB 'main branch'.

In this reading, evaluation of the new 'spaces' under construction through the cycle of debates made possible by the existence of PB has been much more important than a reflection on the 'time' of this interaction, although this has meant broadening participation to the whole year (from January to December), or that depth has been sacrificed to evaluation techniques on the feasibility of proposals put forward by inhabitants in every situation where the PB cycle has been limited to the second half of the year. Thus, ICTs have hardly ever been valorised as regards the

[28] D. Schmidt, *A "desidiotização" da cidadania. A dimensão pedagógica do Orçamento Participativo*. Intervento al Seminario *O OP visto pelos seus pesquisadores.* PMPA, Porto Alegre, 2000
[29] R. Abers, *Inventing Local Democracy,* London: Lynne Rienner Publishers, 2000
[30] S. Ravazzi, *Civicrazia. Quando i cittadini decidono*, Turin: Aracne, 2007.
[31] In countless examples, suggestions put forward by inhabitants by computerised means (email or web pages with interactive files) are put to the evaluation of public meetings, as is the case in Venice Lido, Pieve Emmanuele or Grottammare in Italy.
[32] V. Borghi, La sperimentazione del Bilancio Partecipativo nel Comune di Modena. Report di monitoraggio: l'avvio della sperimentazione e la fase di ascolto strutturato, Available HTTP: http://www.comune.modena.it/bilanciopartecipativo/documenti-gen2005.shtml (last access: 14th December, 2011)

'instantaneity' component itself (capable of modifying the volume of the 'time' factor in the process), but have been submitted to deadlines of real-time debate taking place in meetings, in studios or in local and thematic working groups which characterise most of the PB 'organisational architecture'.

Only rarely was greater attention given to the valorisation of some specific ICT potentialities, such as in Jun, a municipality of little more than 2,350 inhabitants, in the Spanish province of Granada. There – since 2001 – all the families were made 'literate' so as to use computer means and were assisted in buying family computers or in using public spaces with Internet access. This pre-condition has made voting possible in the Annual Budget held in the Municipal Assembly plenary meeting almost simultaneously with inhabitants' web-based voting.[33] In this case, the temporal 'gap' between the two voting situations is politically motivated, since it aims to secure for those elected the final vote on public documents (although already voted – on a consultative basis – by the inhabitants). This represented, anyhow, a clear acknowledgment of the prominence of representative democracy.

Pilot schemes such as the one mentioned above are directed at linking the real-time components of PB processes and ICT use through a syntax based on 'coordinate sentences'. However, it would appear difficult to reproduce these on a larger scale, for practical and economic reasons. It is, however, true that – although there are as yet no comparative analyses on PB use of ICTs[34] – the impression is felt, based on fact, that the majority of experiences until recently did not aim to build virtual spaces for attributing to ICTs the function which Hacker and Djik[35] might define as 'conversation' among players, based on the acknowledgment of their capacity to stimulate the 'mental dimension' of interchange and shared understanding.

Where Vignola, Italy, is concerned, implementing the new technologies in the PB process was indeed made along different lines, not favouring articulation between real-time components and online voting. In this case, the same importance was accorded to real-time voting and online voting. This meant that the winning project was approved by almost 60% of electronic votes, even if on the overall process electronic voting did not overcome the 24% of expressions of interest[36]. A similar "divide" played as a disincentive for physical participation in meetings,

[33] See http://www.ayuntamientojun.org
[34] Recently, the project 'ePOLIS' (Co-operative Research on ICT and Participatory Budgeting in Local Governance) was created by the TNI Institute of Amsterdam, within the VII Framework.
[35] K. Hacker, J. Djik, 2006 (sse note 8).
[36] G. Allegretti, M.E. Frascaroli, *Percorsi condivisi. Contributi per un atlante delle pratiche partecipative in Italia,* Editrice Alinea, Firenze, 2006.

leading the 2005 PB experiment to death. Such an outcome generated a widespread scepticism, which trough books and manuals[37] acted for some years as a sort of global "disincentive" to reproduce a tight link between Participatory Budgeting and the use of ICTs in voting on-line the main budgetary priorities. Such a behaviour was mainly justified by the fear of "flattening" co-decisions with citizens on very simple issues, gathering consensus through a bare "click-on-the-mouse", so depreciating more complex forms of prioritisation able to stimulate a higher quality dialogue between the citizens.

A sort of "prejudice" on PBs centred on the active role of ICTs in the decision-making phase spread around in the first decade of the 21st century, based on the impression that it was letting aside all its "pedagogic potentials" and the interest for a "high quality of deliberation" in favour of the simple summing of individual preferences indicate by inhabitants in the "grey" space hidden behind a screen. It is not a case if Sintomer and Ganuza[38] have been observing that – especially in Spain – the use of technologies for voting priorities in Participatory Budgeting experiments seems today a feature belonging mainly to the processes implemented by conservative political coalitions, whose motivation for experimenting PB is more linked to goals of administrative modernisation than of creating empowerment and fostering the access to co-decision to all of the citizens, and especially to vulnerable social groups. One clear case is that of Malaga Municipality, a city of around 600,000 inhabitants whose local government (led by the conservative Popular Party) started in 2007 an E-PB, while its Provincial Government (led by a Socialist-Communist coalition) was promoting a project for promoting Participatory Budgeting experiments in more than 20 small cities in the roundabouts, focusing on the centrality of face-to-face relations among participants. The Malaga E-PB resulted in a very efficient device, as far as the control of decisions' implementation was concerned: in fact, an integrated system of monitoring which used Internet and mobile phones (mainly SMS) was set in place, enhancing transparency and accountability of the overall "implementation cycle" of PB. What, unfortunately, remained very foggy was the phase of hierarchisation of budget choices, because the electronic mechanism which serves to aggregate the individual preferences and then sort out the list of most voted priorities remains a "grey zone", whose logics is not clearly exposed to the

[37] For Y. Sintomer and G. Allegretti, 2009 see note 10; G. Allegretti, P. Garcia Lleiva, P. Paño Yanez, *Viajando por los presupuwstos participativos*, Malaga, CEDMA, 2011.
[38] Y. Sintomer, E. Ganuza, *Democracia participative y modernización de los servicios públicos: Investigación sobre las experiencias de presupuesto participativo en Europa*, TNI, Amsterdam, 2011.

public, so letting the clear impression that the obscurity of the traditional political culture is not even challenged, let aside modified, by the Participatory Budgeting (*idem*).

IV. Enlightening transformations: evidences from some cases in peripheral and semipheriferal countries.

Consulting comparative literature on PB, we see that there are four main dimensions contributing decisively to the success of 'experimentations': political will, the self-organizing capacity of the social fabrics, financial autonomy of the institutions that develop these experiments, and the institutional design of the process[39]. The latter dimensions represent factors which justify inserting PB in the context of technical processes, either because they enable social interaction on 'high technical content' themes, or because the interaction in question is enabled through complex, creative and innovative 'social engineering' procedures. These must take into account the difficulties, firstly, of stimulating public participation on an apparently complex theme and, secondly, of relating social debate to the operating of administrative apparatuses, very often displaying inertia.

With regard to the first factor, the greatest innovation of PB could even be condensed to its capacity for 'socialising' the debate on public costs (and sometimes even on revenues[40]), without trivialising it, but bringing to the fore the 'narrative' and more communicative dimension of the theme broached[41]. At the same time, it serves to demystify the more technical components of the contents through a re-politicising of the debate and to provide a 'translation' of traditionally inaccessible and 'elitist' languages. In this perspective, it is the 'architecture' of the process itself which must guarantee 'accessibility' of the themes under debate through linkage of the specific spaces given over to ascertaining the technical aspects of the proposals debated and the capacity of the process to shape awareness and 'enable' greater depth of language and knowledge to benefit participants 'in the course of action'. This indispensable engineering explains the caution

[39] G. Allegretti, *Autoprogettualità come paradigma urbano*, Florence: Alinea, 2003; L. Avritzer, Z. Navarro (org.), *A inovação democrática no Brasil*, São Paulo: Cortez, 2002; Y. Cabannes, *Participatory Budgeting and Local finances,* Base-Document for the network URBAL N° 9, Porto Alegre: PGU-ALC/Comissão Europeia/Prefeitura de Porto Alegre, 2004; G. de Grazia, A. C. Ribeiro (org.), *Experiências de Orçamento Participativo no Brasil. Periodo de 1997 a 2000*, Petrópolis: Editora Vozes/Forum Nacional de Participação Popular, 2003.

[40] It is the case of some experiences done between 2008 and 2011 in Grottammare (Italy) or Santa Cristina d'Aro (Catalonia – Spain), where PB was also used to partially challenge the structure of revenues, discussing slices of local taxes or private/public partnerships. As underlined in Sintomer, Allegretti, Herzberg and Röcke (2010), the African context is today that where PBs shows more interest in affecting revenues through the discussion of expenditures, so evidencing an important "paradigmatic shift" in conceiving the device.

[41] G. Allegretti, 2003 (see note 36).

with which many institutions organizing PB process decisions approach the use of other elements which might be perceived by inhabitants as a tool for a 're-technicisation' of budget decisions and for a 'progressive deflecting' of inhabitants from decision-making processes, giving the impression that the political will for a true 'opening up' of the public apparatus to incisive contribution on the part of the territory's inhabitants may amount to little more than false propaganda. Usually, this type of fear affects the use of 'calculation matrices' containing socio-technical factors for vote-counting and priorities-setting in regard to those participating in meetings[42]. Similar considerations apply to ICT use in Participatory Budgeting, in roles placing them beyond a merely 'informational' use or process monitoring[43]. Presumably, it is the image of ICTs as a strong technological component and containing potentially 'elitist' elements in terms of access that determine a 'syntax of ICT use' centred on its 'subordination' to the face-to-face parts of PB cycles. What is worth highlighting is that this 'image' might represent the 'projection' of the fear of generations as yet not totally at ease with technology. This has – undoubtedly – a negative effect on dialogue with other groups (such as young people) for whom the language of the new technologies is user-friendly and even stimulates their engaging with public debate.

These reflections show the complexity of integrating PBs – as technological instruments – in debates centred on democracy and technology, just as it is not possible to place PBs univocally – as instruments for political innovation – in the sphere of the six families of democracy summed up by Held[44]. Some concrete cases can help us to have evidences which focus on how the "fear" of using ICTs in connection to Participatory Budgeting is gradually being demystified, so re-centring the presence of information and communication technologies as one of the important elements that could shape the device, without negatively affecting its outcomes and impacts.

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[42] In Europe, these matrices (very widespread in Brazil) are used only in some cases in Spain and England. Their central tenet is that the needs of those present at PB debates are not the only ones in the territory. Thus, 'pondering' the weight attributed to the votes of those present with other objective factors (number of inhabitants in an area, beneficiaries of a project, degree of need of the action proposed, capacity of the proposal to create 'positive discrimination' for more deprived social categories, etc.) may help to bear in mind – while the process is ongoing, and not just after the event – the needs of players absent from same, as also territorial sustainability features. Under this perspectives, such matrix are conceived as tools for fostering social justice and a more equal redistribution of public resources. See: G. Allegretti, Giustizia sociale, inclusività e altre sfide aperte per il futuro dei processi partecipativi europei, in: *Democrazia Partecipativa. Esperienze e prospettive in Italia e in Europa,* U. Allegretti (org.),. Firenze: Firenze University Press, 2009; A. Marquetti; G. Campos, R. Pires, *Democracia Participativa e Redistribuição - Análise de Experiências de Orçamento*, Xama, S. Paulo, 2008

[43] G. Allegretti, paper ""*Knowledge city and citizens knowledge: which help from IT to participatory process? Examples from some participatory budgeting experiences"* presented at the conference "*Knowledge Cities. Future of Cities in Knowledge Economy*", Shah Alam, Malaysia, 16-19 July 2007.

[44] D. Held, *Models of Democracy*, 3rd ed, Palo Alto, CA:Stanford University Press/Polity Press, 2006

1. Belo Horizonte, the city which dared to start an E-PB

The first example which is worth to quote, is undoubtedly that of Belo Horizonte, a metropolis in the central-southern Brazil, the country where PB first took shape, in a context of the re-democratisation of the nation (after two decades of military dictatorship) in which social forces endeavoured not only to restore the democratic regime, but also to re-define the very meaning of democracy[45]. The case of Belo Horizonte does not belong to that family of Participatory Budgeting whose origin put down roots in the pressures of organised civil society, as occurred in Porto Alegre (the metropolis whose success made PB be adopted by several Brazilian municipalities, at times in a mimetic fashion) or other cities in which the process was put on the way to radical horizons. Indeed, the capital city of Minas Gerais (2.4 million inhabitants in a metropolitan area with 5 million) saw the first PB edition applied in 1993, on the exclusive initiative of the government, when the Workers' Party came to power in the municipal authorities and decided to follow the national party political mainstream.

Commonly referred to as 'OP/BH' (i.e. PB/BH), the process in Belo Horizonte was always characterised by a great capacity for evolution. Initially designed to adhere to a strategy whereby the entire administration would be involved in implementing it (through the creation of a communication plan and the pre-definition of the values destined for public deliberation), as time went on, PB/BH saw its design altered in almost all of its editions, stamped by two major phenomena. The first – consonant with what had occurred in other cities – was the conversion, in 1999, to biennial cycles (as opposed to annual, as had been the case). The second might be defined as a gradual 'political marginalisation' which led the PB to be moved from the Mayor's Office (which secured its transversal control over all investment areas) to the Planning Secretariat, through the Public Participation Coordinating body, as it is the case in many countries. Another reading of this move to the Planning Secretariat is that of the institutionalisation of the process, which coincides with the creation of a specific institutional structure to put it in place, removing the need for the Mayor's role as activator of the process. Paradoxically, these changes were the result of an intention – just, but almost obsessive – to

[45] It may be recovered that such a context worked in favour of effective de-centralisation of political power, which strengthened municipal governments and enabled some of them – those of a more progressive and innovative nature – to begin experimenting in the area of new political participatory institutions, until then in government hands. Within these democratic experimentations, PB, as a process of public deliberation on public municipal budgeting and policies, stood out given its capacity for democratising a central dimension of public decision-making until then centralised in the hands of techno-bureaucracies (the public budget), for combining direct and representative democracy, and for placing citizen-individuals at its centre, going beyond visions of social dialogue centred merely on strong pre-organised stakeholders.

guarantee that endeavours co-decided with the inhabitants could be carried out in a manner that prevents a decline in process credibility that affected other examples negatively. This same intention gave rise to three main transformations in the PB/BH format, with the aim of increasing progressive control by the citizens on the life of public works:

1) link to the Office for Planning, organised as a space which is able to secure the best concrete effects and linkage to long-term investment;
2) the creation of Citizens' Committees for Inspecting and Follow-up (COMFORÇAS) for the implementing of choices co-decided with the inhabitants, who also feature as agents for the control of building sites;
3) the creation in 2004 of a Participation School[46] aiming to create 'social multipliers' to broaden the PB social catchment area, offering training opportunities for community leadership and for other persons involved in the city's participatory network. By means of the systematising of the different initiatives that were being undertaken in this regard, the School has already, in a few years, helped expand the organisation of civil society[47].

As demonstrated by Avritzer[48], in the past few years Belo Horizonte's PB has had an average investment, decided with the inhabitants, which did not exceed 3.93% of the total budget, having had a maximum investment of 5.35% of available resources. Compared to cities such as Porto Alegre, which reached levels of investment ranging from 20 to 30% in the mid 1990s, it is easy to understand how PB/BH had a 'residual' range (instead of a 'pivotal' one), being shaped as an effective 'sector policy' in the area of social policies and recovery of auto-produced informal settlements (i.e. slums), centring around 22.29% of the capital city's population[49]. Although the variation in *per capita* investment, distributed by means of PB in the different BH districts, has hardly ever exceeded R$90[50], economic surveys show that PB/BH has succeeded in providing a

[46] The school was set up close to civil society institutions such as the FASE NGO and the Pinheiro Foundation.
[47] L. Avritzer, paper presented at the conference "*Democracia Participativa*", CES, Coimbra, Portugal, 6 February 2007
[48] See footnote 44.
[49] Whereas in 1950 there were about 25,000 persons living in 18 shanty towns, in 2006 the number of sub-housing had become 209, with 499,000 dwellers. Today the shanty towns occupy 16.14 square kilometres, a heavily populated area which represents little more than 5% of the total area of the city (data supplied by Horizontes Institute, August 2006).
[50] About 33 Euros, on 10 August 2007. In Porto Alegre the average variation up to 2001 was of 100 to 1,650 R$, according to Pires (2003).

good equity level and sweeping distribution of benefits[51], especially in the most deprived areas of the city.

The search for this redistributive justice led to a number of innovations in the institutional design of the PB/BH in the 9 infra-municipal districts.[52] Of these, the creation of 'priority caravans' deserves special mention. These consist of collective inspections so that citizens' delegates can get a 'feel' for the sites of the inhabitants' choice of demands, believing that 'physically crossing the territory' ('*walking along it, getting your hands and feet dirty*', as the urbanist Patrick Geddes used to say[53]) helps build disseminated civic awareness and urban solidarity.

Given that, from its first edition, the PB/BH aimed to re-direct public spending towards areas regarded as being in greater need of public investment (that is, it endeavoured to associate participation with re-distribution of public goods and services), decisions as to the object of public resources linked to the process have been sustained by harmonising inhabitants' votes with other decision-making criteria. These are territorially based and consider the lack and/or deterioration of social equipment, the population mass, and the Urban Quality of Life Index – UQLI[54] – adopted from 2001 on. Thus, more densely populated areas with a lower UQLI are the recipients of greater resources. In addition, decisions now made regarding poor or informal neighbourhoods have been included in a Global Development Plan drawn up for these areas, and participation rules set out a quorum (0.5% of each district's population) for public meetings, with a view to securing approval of priorities. The large number of demands in the area of affordable housing gave rise in 1996 to a specific PB – the Housing PB – which makes decisions on investment in this field, in a separate process coordinated by the Belo Horizonte Urbanisation Company (URBEL). 1999 saw the creation of 'City PB', aimed at defining budget priorities for sector policies, articulating planning decisions with those made in other participation arenas, such

[51] R. Rocha Pires, *O Orçamento Participativo em Belo Horizonte e seus Efeitos Distributivos sobre a Exclusão Territorial*. Anais X Encontro Nacional do ANPUR. Belo Horizonte, 2003. Avaiable HTTP www.democraciaparticipativa.org (last access, 18th January, 2012)

[52] The city of BH is divided into nine Administrative Regions (Barreiro, Centro-Sul, Leste, Nordeste, Noroeste, Norte, Oeste, Pampulha, Venda Nova). Nowadays, the PB holds a first plenary meeting in each district, to present and discuss the process, a second 'sitting' (physically based in sub-districts) to pre-select priorities and for selection of the people's delegates, a regional caravan of priorities to inspect the territory, the Regional Forums for Budgeting Priorities (for approval of the Regional Task Plan, and election of representatives on the Inspection Committees – COMFORÇAs).

[53] See Boardman, *Patrick Geddes: Maker of the Future*, The University of North Carolina Press, Chapel Hill, 1944.

[54] The Urban Quality of Life Index, which combines factors linked to the number of inhabitants and income levels, comprises 54 indicators relating to supply areas, culture, education, sport, housing, urban infra-structures, environment, health, urban services, and urban security.

as the Public Policy Councils and the Sector Conferences (health, social security, children and adolescents, etc.). The so-called 'District OP' (the original PB design, based on priorities elected by the inhabitants of the city's districts and sub-districts) remained active for the definition of local investment.

The above-mentioned transformations during the course of the years evince a new, complex institutional design which could not have been sustained had decisions regarding change (albeit proposed by the Municipality) not been made collectively with the participation of the inhabitants, as happened elsewhere. So, the rules and the PB architectural changes have been perceived as a "collectively-decided" growth, which has been seeking for consolidation and continuous modernisation of the participatory device. Such transformations include also the use of ICTs, which – in the case of Belo Horizonte – mean essentially the Internet.

In this respect, it must be pointed out that the Internet in BH was used for many years essentially as a means of 'information' for the middle to high income social strata, with full awareness that the remaining inhabitants required investment in other forms of communication such as leaflets, cartoons, sound cars, bill-boards, advertising on community radio stations and other media. The contents of the information conveyed by the Internet were hardly ever of great consequence, regardless of the existence of a cycle of real-time meetings where communication is orally transmitted. Again, the 'works maps' funded under the PB/BH, accessible on the Internet, did not allow for the interactivity and 'mass control' regarding each of the building sites, a role attributed to the activity of COMFORÇAS. Unlike other cities (such as Seville, Modena or Porto Alegre[55]), the PB/BH web page never displayed interactive databases which could be consulted freely or by means of passwords, just as there is no detailed 'spatialisation' of mass demands projected on city maps in the Geoblog format, not even with the reduced degrees of 'interactivity', as was the case of the PB in the Rome XI Municipality[56].

In such a framework, the year of 2006 represented a greater change for Belo Horizonte, as far as the so-called 'Digital PB' was associated to the process of public deliberation on the City Budget, offering the possibility of choosing 'some' investments via the Internet. The building projects put forward for a vote within the framework of this process derived from a selection

[55] See www.observapoa.com.br/

[56] See www.municipiopartecipato.it. Here in 2006 the 'eDem 1.0' Project, funded by the then Italian Ministry for Technology and Innovation, made available a website where – drawing on GoogleEarth maps – territorial areas, citizens' concerns, and demands are viewed. The site represents a *GeoBlog* model requiring an 'external moderator', since users cannot print their indications and messages directly onto the maps.

effected jointly by City Hall and COMFORÇAS. The building projects selected were put to the vote over an established time frame and the nine receiving the largest number of votes were selected (of the 4 initial proposals, one is selected per district). To implement the process, the City Hall of Belo Horizonte set up 178 polling stations in the city, and information was provided for those who would be present at those same stations to lend assistance to voters who came along. These polling stations were strategically placed in lower-income areas. The adoption of a spatial criterion for the distribution of equipment did not, however, take into account the fact that within each zone, including those considered higher-income areas, there are often unequal conditions of access to IT equipment. This initial survey was not carried out by City Hall. Information regarding the siting of all the voting stations was sent out by mail to all the households in the city. These stations, besides participating in the voting process, provided access to multiple types of information about PB and enabled virtual visits to the building sites, participation in debate forums, among other activities.

Additional resources were allocated to putting in place the Digital PB, increasing total investment in the PB process by about 20%. In total, the district PB became responsible for deciding on ¾ of the total available amount, the digital PB being allotted approximately ¼ of this amount; unlike the case of the real-time process, the last was divided equally among the City's Administrative Regions. The way this innovation was put in place shows us that the process was introduced with "prudence", almost taking on the shape of a pilot intervention. The main reasons given for choosing this strategy were:

1) the need not to alter excessively the PB image as an instrument that allows 'priorities' to be 'reversed', working in favour of the more fragile social strata (who very often coincide with those who do not have independent access to most ICTs, especially the Internet);
2) the need to broaden the 'appeal' of real-time PB. In fact, although weight was lent to virtual technologies, 'limitations' were placed, in order to persuade internauts to take part in face-to-face offline meetings so as to retain the onus of the proposals themselves within public debate.

Opening up a space such as the digital PB naturally led to a clear definition of participation rules, this having been opened up to all the city's voters, i.e. every citizen above the age of 16, the voters in BH. Each voter may only vote once, to this end using their voter's number. Of a total of building works put to the vote – totalling 36, which corresponds to 4 per each of the 9 districts –, each voter was able to choose one per district.

As for the overall reason for introducing the 'Digital PB', the Municipality explained the need to reverse a number of 'reductionist' trends in the participation of the district PB inhabitants.[57] Since the Digital PB functioned as a complement of real-time/face-to-face PB, endeavours were directed at broadening existing levels of participation and at strengthening PB interaction with urban and social intervention, of great importance for the neighbourhood-based PB. In the first edition of the Digital Participatory Budgeting, which lasted online for 42 days, 172,266 voters took part, a total of 503,266 votes having been counted (since each voter could cast up to 9 votes, one in each district). In that same year, approximately 38,300 persons participated in the real-time PB. These two types of participation – in meetings, in real-time offline PB, and via the Internet, in the case of the Digital PB – are counted each one autonomously.

In the first edition, the 9 building projects receiving the most votes (one per district) were: two refurbishment projects of social equipment, two road improvement projects, two ecological parks, restoring one medical centre, restoring a leisure area and one sports facility. Although it is not possible to establish a comparison with the typology of building works approved in offline PB, it is worth to remember that in the latter's thirteen years' existence before the birth of the Digital PB, 67% of building works approved corresponded to projects for infrastructure building and urbanisation (802 out of 1,184)[58].

The second edition of the Digital PB happened in 2008 and counted on the introduction of some alterations in its design, the first one being the shrinking in number of the approvable investments (only 5) and the second their concentration in critical focal points of the city mobility system, in terms of traffic jam. A third change related with the volume of investments, much bigger than in the first edition (around 40 millions of Brazilian Reais) which represented 50% of the fixed amount of 8 millions devoted to real-time off-line PB. The number of polling stations in the city also raised up to 275, while a bus equipped with computers and Internet facilities continues to go around in the most deprived neighbourhoods. In the Digital PB webpage two new

[57] In the thirteen years' existence of the district offline PB – carried out in annual cycles between 1993 and 1998 and in biennial cycles from 1999 to 2006 – mass participation displayed great fluctuation. Up to 1996, participation levels underwent a progressive increase; this dropped off significantly in the following two years. The introduction of biennial cycles led to a further increase, which became consolidated in the first two cycles, but this trend was again reversed in the 2003/2004 cycle, with a reduction of 13,000 participants in regard to the 2001/2002 cycle. It was in this context that the digital PB was introduced. In the 2005/2006 real-time cycle, there was another surge, increasing participation numbers in the district PB by about 8,000.

[58] If we add to these projects the building work carried out in the areas of health and education, we find that this percentage rises to 88%. Building works covering social security, culture, sports, and the environment account for a mere 12% of the sum total of building work approved.

tools were also provided: 5 forum for discussion on each votable priority, and 4 thematic web-chats related to specific public policies, where both citizens and municipal officials could take part. Finally a green telephone helpline was created in order to allow telephone-voting, so to reach inhabitants without access to Internet (it was used to vote by 9,24% of the overall participants). The more reduced period for voting (26 days) was possibly one of the responsible of the decrease in voting (124,320 persons), but possible all the new feature contributed to modify the perception of the process, which took the configuration of a sort of "Strategic Choice" voting, with limited degree of freedom for the inhabitants.

A third edition of the Digital PB was organized in 2011 (being the experiment interrupted during the electoral year of 2010), proposing a methodology more similar to the 2006 experiment: 9 districts voted for choosing an investment priority in each area, out of four possibilities previously discussed with CONFORÇAS. A total of 25.488 registered citizens voted trough the Internet and in the more than 270 places equipped by the Municipal Government, expressing 92.724 votes, equally distributed among man and women. Voters under 20 years represented the 27,8% of the overall participants.

During the three editions of the Digital PB in Belo Horizonte, 110,000 Brazilian Reais were invested for implementing the 19 selected priorities, which received a bit less than 720,000 overall votes by local participants[59]. A we-game called "*QUIZZ - Conheça BH e as obras de uma maneira divertida*" was also created in 2008, with the aim of attracting more young people and testing their knowledge of urban spaces. The votes cast by phone represented around 10% of the overall votes.

The above mentioned strategies show that in Belo Horizonte the objective of extending participation in the PB process has become apparent not only in larger numbers, but also in the endeavour to reach other social sectors in order to include new players in the process. Thus, there was an attempt to capture the attention of new social strata and new social groups, especially the youngsters, up to then visibly absent from the process. In fact, unlike other PB experiences, Belo Horizonte did not create mechanisms specifically directed at attracting the participation of younger people (the so called "*Children or Teenagers' PBs*" or "*School PBs*"; so introducing

[59] See news posted on January 27, 2012 in this page: thttp://portalpbh.pbh.gov.br/pbh/ecp/noticia.do?evento=portlet&pAc=not&idConteudo=55033&pIdPlc=&app=salanoticias and the "Relatorio do resultado da votação do OP Digital 2011" published by the Belo Horizonte Municipality, 2012 (http://portalpbh.pbh.gov.br/pbh/ecp/files.do?evento=download&urlArqPlc=Relatorio_da_votacao_do_OP_Digital_2011_2.pdf – last access February 15, 2012).

new technologies into the process, promoted by the Digital PB, aimed to a very large extent to reach this group. On the other hand, the digital PB was conceived to acquaint the population with the city as a whole. Participation in real-time offline PB enables each citizen to gain an in-depth insight into the district and neighbourhood where he/she lives, for it is at this level that citizens' participation is promoted. Giving people the opportunity to choose a building plan per city district, City Hall endeavoured to create a mechanism whereby a broader view of the city could be gleaned by those who participated in the Digital PB. Lastly, and despite the fact that the amount available for the digital PB was significantly lower than that for offline version, the only building work chosen for voting was that of a more structuring nature and which embodied regional interest. The focus of this choice was to identify building work requiring a higher investment sum and which would never be approved at the real-time PB, given its high costs. Voters were thus urged to choose construction work that would serve the totality of their district and not just their neighbourhood.

2. Emulating or overcoming the Belo Horizonte's paradigm? Shifting perspectives in recent Participatory Budgeting were ICTs represented a pivotal feature.

Although, undoubtedly, in the first decade of the Belo Horizonte's Participatory Budgeting the stress was laid on the issue of 'efficacy' of public policies (including its distributive justice feature), the introduction of the Digital PB – as mentioned earlier – marked a transition towards seeking greater 'efficiency', i.e. towards greater amplitude of the process, with costs increasing only slightly[60] and a wide international visibility[61]. It also marked a move to a greater broadening of participation in the PB process, by means of 'seducing' new participants, through use of the new technologies.

Even if the Digital-PB experiment was not implemented in Belo Horizonte between 2008 and 2011, and only recently reappeared (no explicit explanation was given for such a large period during which the experiment was suspended[62]), it explicitly inspired several other Participatory Budgeting examples around the world which – in the following years – tried to experience

[60] Cf. speech by Júlio Pires, Secretary of Planning, Budget and Information of Belo Horizonte City Hall at the seminar "*Participatory Budgeting: Building Participatory Democracy and/or Improving Municipal Finance*", 21 June 2006, Networking Event of the UN-Habitat "*Third Urban Forum – WUF3*", Vancouver, Canada.

[61] See the data of pages consulted from 68 country, exposed in Nabucco, Macedo, Ferreira (2009).

[62] See the webpage of Participatory Budgeting, which only traces the historic of the old experiences: http://portalpbh.pbh.gov.br/ pbh/ecp/comunidade.do?app=portaldoop

different forms of integration with ICTs[63]. The majority of them only referred to the use of Internet, and only few (as the Malaga case mentioned in the end of paragraph II) used a broader range of instruments, as SMS or the social networks, in order to foster new forms of "fidelisation" to PB of a very diverse panorama of citizens' groups. Moreover, some of them did not even manage to contribute to produce any new communicational culture, using technologies as a mere "support" for very traditional practices of social interaction which self-denominated as "citizens' participation", where transparency and a light consultation on budgetary issues were the only real component of the project[64]. Unfortunately, many of those processes are very recent, so that is not possible to extract major conclusions regarding experiments which have been under way for only one or two years and about which serious evaluations have still not been conducted. Despite this, being that some of their results are already visible and – in any case – the shift of model that they represent sounds clear, they are worth recording briefly in this paper.

The first case that could be interesting to quote in this perspective is that of Lisbon, the first European capital (and one of the major cities of the continent, together with Seville, in Spain, and Colonia, in Germany) to introduce a Participatory Budgeting process in the city. Unlike in Belo Horizonte, the use of ICTs for proposing and voting priorities in Lisbon became – since the beginning – a central feature for Participatory Budgeting, and not merely a complementary

[63] E. Peruzzotti, M. Magnelli, T. Peixoto, "*La Plata; Argentina: Multi-Channel Participatory Budgeting. Estudo de caso para o projeto Vitalizing Democracy through participation*". Bertelsmann Stiftung, 2011. Disponível em: http://www.vitalizing-democracy.org/site/downloads /277_265_Case_Study_La_Plata.pdf. (last access: 16th December, 2011); J.C. Abreu, Andrade de, Do Analógico ao Digital: Democracia, Internet e Orçamento Participativo, in *EnANPAD* 2011, Rio de Janeiro. Proceedings of EnANPAD 2011, 2011, 1-20; J.C. Abreu, Andrade de; D.R. Armond-De-Melo, Motta, G.S., Modelos de Democracia Eletrônica: Analisando o Orçamento Participativo Digital, in *EnAPG – Encontro de Administração Pública e Governança*, 2010, Vitória – ES. Anais do EnAPG – ANPAD, 2010. v. 1; N. Best, M. Ribeiro, R. Matheus, J.C. Vaz, Internet e a participação cidadã nas experiências de orçamento participativo digital no Brasil, in: *Cadernos PPG-AU/FAUFBA*, v. 9, 2010, p. 105-124; T. Peixoto, *E-Participatory Budgeting: e-Democracy from theory to success?*. E-Working Papers, 2008. Disponível em: http://edc.unige.ch/edcadmin/images/Tiago.pdf (last access: 4th February, 2012); E. S. Ferreira Dimas, *Inclusão, participação, associativismo e qualidade da deliberação pública no OP Digital de BH,* in: *34 Encontro Anual da ANPOCS, 2010*, Caxambu. Programa e Resumos – 34 Encontro Anual da ANPOCS. São Paulo : Anpocs, 2010.; R. Sampaio, *Participação e deliberação na internet: um estudo de caso do Orçamento Participativo Digital de Belo Horizonte*, Master Tesis in Social Communication, Belo Horizonte: UFMG, 2010

[64] In 2004, the Italian Ministry of Technological Innovation opened a huge call for projects on "E-Democracy", approving 57 out of 129 projects, for a 9.5 million Euros funding. Nine out of the approved ones were about Participatory Budgeting, trying to link its experimentation with new possibilities coming from ICTs. They came before the Belo Horizonte experiment and so were not able to take advantage of that experience. One of the most promising (called *"Telep@b",* coordinated by the Union of Mountains Communities in Tuscany) gathered 29 municipalities, all together summing 260,000 inhabitants. Funded with only 200,000 € (then complemented by the Tuscany Region) it made explicit reference to the ongoing Belo Horizonte experiment. But it was able only to create a common platform of transparency for municipal accounts (through a specific software) and a lower political will of participating municipalities prevented the realisation of a real integration of "light" PB models with ICTs in contexts with a strong degree of isolation of part of municipal territories. Only rare cases like the city of Abbadia San Salvatore managed to create more innovative form of integration, namely attracting young local people.

device to the engineering of face-to-face meetings. The Lisbon PB was one of the first in Portugal to be a co-decisional arena, committed to respect the order of priorities voted by the participants, which could and still can include also commuter workers or citizens interested in Lisbon transformations, beyond the mere category of "residents"; the majority of Portuguese experiment since 2003 had always been "consultative PB", with no degree of really co-decision making included[65]. In 2007, when the new socialist mayor attempted to create the pre-conditions for experimenting a city-wide PB through the organisation of some "decentralised assemblies" in some urban districts, it already existed an on-going experiment implemented by the communist president of the Carnide District Government in one of the 53 sub-municipal institutions which compose the capital[66]. But when the Lisbon PB really took shape in summer of 2008, it was decided that it was only going to count on a "virtual mechanism" for proposing and voting the priorities within a "package" of 5 million Euros[67] that the municipality devoted to the co-decision experiment. The choice of shaping the Lisbon Participatory Budgeting as an experiment totally enrooted in the "virtual sphere", constituted by an Internet website, was mainly due to practical reasons, and first of all to an economic motivation: the lack of funding for implementing the start-up. Being that the implementation of PB was mainly a request made by a minority party supporting the new municipal government (the Bloco the Esquerda), it possibly appeared risky – to a substantially sceptical executive cabinet – to invest big money in a new experiment whose success was far from being granted, and which could be strongly attacked by the opposition taking into account a merely short-term cost/benefit perspective. While the so-called "decentralised meetings" in the city continued, a "Charter of Principles for Participatory Budgeting" was also approved, taking the form of a sort of "constitution" which set the values, the goals and the mission of the new process, so to inspire and govern the future transformations of the concrete tools and devices for its implementation.

In 2008, the new Internet-driven PB of Lisbon preferred to invest in areas as the training of civil servants (together with the "OP Portugal" EU-funded project) and the construction of a cross-departmental working group that could take care of the results of the new experiments and granted its sustainability. An internal light system of monitoring and evaluation was also set, in

[65] G. Allegretti, N. Dias, "The variable geometry of Participatory Budgeting: which lessons from the new Portuguese explosion", in: *Proceedings of the Conference "Learning Democracy by Doing: Alternative Practices in Citizenship Learning and Participatory Democracy*, October 16-18, 2008, OISE/Toronto University, 2009.
[66] For Y. Sintomer, G. Allegretti, 2012, see footnote 10.
[67] Out of an investment budget of around 140 millions, at the time.

order to offer data for progressively bettering the process. According to the data diffused by the Lisbon Municipality, 1.732 citizens registered during the different stages of the PB 2008, and 577 proposals were evaluated and put on-line for voting in all the different sectors of action, being the majority (around 45%) related to infrastructures, mobility, green spaces and urban regeneration. The 5 winning projects gathered 1101 votes during the very short PB cycle (which occurred between October and November 2008); they mainly belonged to these thematic areas and were supported by an interesting mobilisation of social networks and through collective action of bikers and environmental activists. According to the 2009 Municipal PB Report, 74% of the final 2809 votes awarded proposals related to the requalification of public and green open spaces[68]. Before conceiving the new 2009 PB cycle (related to the 2010 provisional budget), an inquiry was conducted by the Town Hall on the registered internauts, which showed 34% of answers, and a good degree of satisfaction for the new process, but also evidenced several proposals for bettering the first experiment, and some structural limitations related to the age and literacy structure of participants[69]. As in the interpretation of the municipal team, despite all its positive aspects, the mere Internet-driven nature of the 2008 Participatory Budgeting had played as a "factor of exclusion" (idem) that needed to be reverted in the future.

So, the 2009 edition of PB was submitted to several additions, which rebalanced the "weight" of Internet in the overall architecture. Eight "public assemblies" (both during the proposal phase and the voting phase of the cycle) were created, and a bus (named as "autocarro do OP") started travelling around the city, being equipped with computers and trained facilitators linked to the municipal team. Such "stepping back" from a merely internet-based process to a more balanced architecture undoubtedly determined a change in the average profile of participants, raising the number of elder participants and also revealing a more "inclusive" capacity of inhabitants living in vulnerable areas[70]. All the global indicators of the process came out modified, as registered citizens increased to 12.681, but also voters raised from 1.101 (2008) to 4.719 (2009) up to 11.570 (2010) and proposals reached the number of 927 in 2010, giving prevalence to new sectors of action as culture, sport and social services.

[68] CML – Câmara Municipal de Lisboa, *Orçamento participativo 2009. Relatórios de Avaliação*, Câmara Municipal de Lisboa, Lisboa Janeiro 2010

[69] For example, 52% of voters were under 35 years old, and 855 out of 1101 hold University Education or more.

[70] CML – Câmara Municipal de Lisboa, *Orçamento participativo 2010. Relatórios de Avaliação*, Câmara Municipal de Lisboa, Lisboa Janeiro 2011;CES/ CML – Câmara Municipal de Lisboa, *Orçamento participativo 2011. Relatórios de Avaliação*, Câmara Municipal de Lisboa/CES, Lisboa/Coimbra, Janeiro 2012

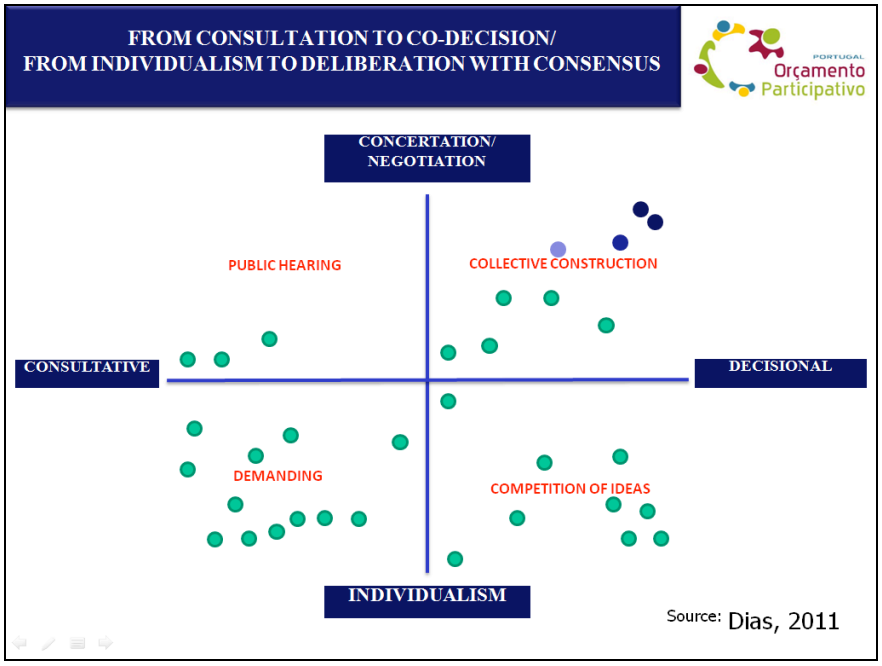
One of the more interesting aspects of such an evolution is that the new face-to-face assemblies demonstrated to be much more dynamic spaces for creating consensus around proposals: this is clear when noticing that in 2010 the 53% of the overall list of proposals emerged from territorial assemblies (despite only 374 participants appeared) and 5/7 of the winning projects originated in these spaces. The trend was confirmed in 2011 when 27.042 citizens made their registration in the new website of "Lisboa participa" (an umbrella-project which gather together several different participatory experiments conducted by the municipal government), and 17,887 voted for 228 project which intended to merge together 808 proposals which were sent though the internet or emerged (more than half of them: 417) during the public meetings held around the town.

So far, the municipality decided to invest more in face-to-face events, and the expanded cycle (that for 2011 lasted from late April to November, while in 2012 possibly it will start earlier, in the end of march) started including also a series of thematic meetings targeting schoolchildren, universities and professional categories. These new experiments opened room for a new special pilot-PB process devoted to the schools of the deprived district of Marvila, which will be progressively extended to the rest of the city, starting from 2012. The changes in the "territorialisation strategy" of the Participatory Budgeting determined a modification both in the back-office bureaucratic structure leading the PB implementation, as well in the use of Internet, where a new space was opened for geo-referencing the proposals and winning projects, so to increase the level of interaction between participants and the website, providing a better understanding of how the participatory process interacts with the urban space. It sounds interesting that – analysing the quality of the survey done in the end of 2010 by the Town Hall[71] to measure the satisfaction and receive suggestions of citizens to better the PB for 2011 – it emerged that the great majority of participants (especially among those who attended the face-to-face meetings) entered in contact with PB through information received by friends and neighbours, being the Internet only the second tool for spreading effective information on the participatory process[72].

Despite all this positive changes, which were centred on the idea of building a more "balanced grammar" in term of coordination of on-line and off-line tools, the Participatory

[71] 2363 citizens answered, being the 18,45% off the registered participants (they were 30% in the end of 2009, but out of a much lower global number of registered inhabitants).
[72] CES/OPTAR, *Relatorio sobre o OP de Lisboa*, draft, CES, Coimbra, 2011

Budget of Lisbon has not been able to overcome what Nelson Dias described (see image below) as a "competition of ideas" model of PB.



Such a model is still not able to reach a good "capacity of synthesis" through collective negotiation of proposals and projects, so that the feasibility of a high number of proposals (927 in 2010; 808 in 2011) has to be evaluated by the municipal services before being exposed to citizens' voting, while is highly doubtful that the voters will read and evaluate all of them before voting, as an independent research of the "OPtar" project recently demonstrated[73].

Is it possible to imagine that such a still not completely mature model of public discussion of citizens proposals partially enroot its limits in the "unbalanced start-up" of the Lisbon PB, all centred on a Internet-driven tool, which is normally used to gather together individual preferences through a majority-wins method, instead of trying to foster the construction of a shared understanding and of a negotiated consensus among different perspectives? This is a possibility to be undoubtedly verified, together with the centrality of a municipal expectation on the process which much centred on the "quantity" of participants and citizens' proposals, forgetting to take into account that their exponential growth could deeply threaten the "quality"

[73] Thre Project called "OPtar" is led by the author of the present article, but its results are still not exposable in details, due to an agreement with the Lisbon Municipality. They will be public before the beginning of the 2012 cycle.

of the proposal discussed, the feasibility of the tasks of the back-office municipal team and also the awareness that participants have about the variety and specificity of all the proposals running for final voting within every year cycle of PB. Such reflections explain why in the pre-evaluation meetings held at the Town Hall in July 2011, one of the main point of discussion was how to create "intermedium filters" which can allow the Lisbon Participatory Budget to gradually circumscribe the number of proposals which could e voted in November while granting to them an enhanced quality, and without frustrating inhabitants with a "top-down selection" using technical or political criteria of filtering. Similar[74] questions are posed in other participatory processes around Europe (as for example the small city of Canegrate in Italy), which count on the Internet as a space both for "proposing" and "voting" priorities, or where proposals could be addressed through questionnaires and other tools which do not imply a presence and a high commitment level of the proposers.

One possible answer to such a doubt comes from a neighbour municipality to Lisbon, that of Cascais (around 190,000 inhabitants), administered by PSD, a right-wing political party which since two years started to be interested in Participatory Budgeting, deciding to invest on a co-decisional model, even if starting from a limited pot of 1,5 million Euros. Taking into account the difficulties of managing a territory marked by very disperse urban nuclei, often socially polarised, the Cascais administration took two years to define its specific model of Participatory Budgeting, enrooting it in a strong training of municipal team and in a previous process of Agenda XXI which is so far one of the more interesting in Portugal for its tools and results. Cascais, too, decided to use the Internet as a central feature for voting, but in its "Charter of Principles" there is only one reference to the use of ICTs in a context in which is clarified that the pivotal goal is to "assure communication with different socioeconomic and age groups […] and the geographic representativity of citizens". So far, the strategy of Cascais emerged from a specific reflection on the above exposed graphic elaborated by Nelson Dias (who is also a consultant of the municipal team), with the aim to create a model of PB which could mainly foster "collective construction" of ideas and tighten social links among participants. In this perspective it is understandable why the idea of PB territorial assemblies (9 dispersed in all the municipal territory, to guarantee accessibility) become so central for "self-filtering" ideas. In fact, proposals of investments in Cascais can only be done during public meetings, whose organization is twofold: in the first part "consensus tables" gather between 5 and 9 persons, who are supposed

[74] See http://www.canegrate-partecipa.org/seo/

to negotiate and elaborate (through the help of a trained moderator) 2 common proposals in each table; in the second part of the meeting, the two investments selected by each table are socialized and presented by their proposers, so that the entire audience can vote the top 5, which will converge for the final on-line competition. Despite there are still no analysis done on the results of such a mechanism (which was only in its first year of experimenting), for those who have been able to follow the process it is clear that the method chosen has been highly satisfactory for participants, determining a very high level of interaction and promoting networks of citizens and social organizations interested in increasing the collective action. The first satisfaction questionnaires elaborated also show that no frustration bitters the participants whose proposals has not been approved, on the contrary motivating people to come back with more detailed proposals, organizing support, and acting as "multiplier" of the process. The fact that the good working environment is guaranteed by the presence of coffee break and some wall-panels where participants are requested to leave their coloured hand-print, is not marginal: such elements, in fact, allow informal moments and transform every event into a sort of common celebration which continues for hours – sometimes – even after the official end of the meeting, usually outside the venue. So far, the increasing success registered during the 9 meetings of Cascais PB 2011 and during the voting phase (who saw more than 6,900 participants) raises only one central doubt; how to maintain the provided "organizational architecture" of the process, if the number of participants will become so high that it will jeopardize the feasibility of the present structure (because of the time requested by presenting and filtering the proposals of every table)? Anyhow, the chosen model of Cascais Participatory Budgeting shows the need to reduce again (compared to Lisbon) the centrality of ICTs' use in some phases of the discussion and co-decision cycle. Learning from Lisbon, it tries to valorise the interactional aspects of the participatory process, in order that proposals could be the outcome of real negotiation, which include a debate on the quality of presented proposals. Learning from three years of Lisbon experience, Cascais did not need to "step-back" from an Internet-driven process to a more balanced one, because it tried to balance the different tools (distributed in the different phases of the cycle) since the beginning, as stated in its Charter of Principles.

Despite its capacity of offer a more "adult model" of participation based on the "collective construction" of proposals since the early stages, Cascais is also far from having reached a mature capacity of using the different range of possibilities offered by the rich plurality of ICTS. For example, SMS are still not imagined as instrument for monitoring the implementation phase

which will come after co-decision on investment priorities, and the same website of Cascais PB is still not prepared to support a monitoring geo-referred function, which cases of other PBs as in Seville, Belo Horizonte or Porto Alegre showed to be one of the most important features for guaranteeing a success to Participatory Budgeting. The Facebook Page itself, which was opened to give a visibility of the Cascais PB is still not capable to explore all the possibility of networking that it would have, and it play the "minimal role" of a dead support for considerations of the municipal team, which is still not able to facilitate and foster a feeling of ownership by the group of around 250 people which is in touch with it. Such a mistake appears very common in several Portuguese Participatory Budgets, including experiences which specifically target young citizens as the OPJ of the Trofa municipality[75]; while in other countries (has happened in Canegrate, Italy) specific trained personnel is in charge of dialoguing and chatting with internauts for some hours a day, in order to try to explore and exploit the most interesting possibilities that social networks can offer according to the specificities of their structure and their audience.

Undoubtedly, is very important that future experiences of Participatory Budgeting could look at ICTs in a more complex way, taking not only into account the need of a "well-balanced" articulation between the use of Internet and that of face-to-face meetings, but also valorising the richness of other instruments, which are sometimes used in an interesting way in other projects of consultation or social mobilisation. Some examples are starting to appear, even in the Southern World, where the digital divide is deeper and not all the ICT tools can be reabsorbed in a strategy of participation centred on social inclusion and widespread access to all citizens. One interesting case, for example, is the recent process of promotion of 8 municipal Participatory Budgets promoted by the Provincial Government of South Kivu and the World Bank Institute, which started in the Democratic Republic of Congo on February 2011. In fact, after a serious country diagnostic, it was proved that the use of mobile phones is hugely spread in the area, even in villages where electricity is lacking and so TV, Radio and the Internet cannot be accessible by inhabitants. So, the project of promotion of PB counted on free-of-cost SMS (through an agreement with the bigger local telephone service provider) which can inform citizens on the meeting of participatory Budgeting, but also be a tool of transparency and monitoring for the implementation phase of co-decided investments. In one area, a Beta Test is also being conducted since April 2011, to verify if opening to voting through SMS could substantially modify or – on the contrary – respect and enlarge the voting preferences on investment priorities which have

[75] See http://www.facebook.com/opjovemtrofa

been expressed by local citizens during the territorial assembly organised in this first year. The important goal of this test is to foster a better diffusion of the process for the future, but avoiding that it could become an instrument of social discrimination and a risk for the inclusivity of the Participatory Budgeting experiment.

V. From "E-gov" to "We-Gov"? Some final remarks

In recent years, several experiences trying to conjugate Participatory Budgeting and the use of ICTs acquired significant visibility through receiving international awards such as the Bertelsmann Stiftung's Reinhard Mohn Prize 2011 given to the Brazilian City of Recife, or the ESPA Award 2009 received by the Municipality of Cologne. As mentioned previously, many experiments of articulating real-time PB with digital PB had as one of their main objectives that of expanding participation in the process and reducing transactional costs. In merely absolute terms, this expansion is undeniable in the majority of experiences, even if the nature of the new wave of participation – and the level of quality of outcomes – cannot, however, be directly compared to that emerging from processes centred on face-to-face negotiation between social actors.

If in some cases (as Belo Horizonte) the articulation was set in order to avoid "competition" between on-line and off-line participation, in other cases (as in Lisbon) the recent decrease of inhabitants in face-to-face meetings needed to be the object of specific reflections on how it is possible to avoid mechanisms of 'disincentivation', which tend to operate when participants have exactly the same options and advantages in either intervening personally or just choosing to raise their voice or indicate their preferences by means of a simple "virtual presence".

It also has to be taken into account that in many cases (as in Belo Horizonte or Lisbon) the decision to implement the digital PB gave rise to some public criticism, especially as regards info-exclusion[76], with the risk of dirtying also the image of Participatory Budgeting as an instrument fighting against social and territorial marginalisation. Possibly, integrating the existence of a digital-PB within a wider programme of social inclusion could guarantee the permanent placing of ICT equipment in the more deprived areas of a city, for uses other than

[76] Field work in BH made it possible to talk to several persons living in deprived areas. It was apparent that the initial decision to proceed with the digital PB process had not been well received in these communities. In this regard, mention should be made of the fact that the City Hall stepped in, the end result being the articulation of the digital PB with a programme of digital inclusion. As already stated, many polling stations were set up all over the city and persons were trained to man these stations throughout, in order to assist the voting process.

proposing or voting priorities. This feature is particularly relevant. Research recently carried out in Europe[77] on governments who innovatively adopted electronic tools to support democratic practices shows that motivations are much more pragmatic than substantive or normative. Most municipal governments that adopted electronic processes for democracy did so because they already had the technological means (hardware, software, specialised staff and specific departments) enabling them to promote democratic processes through ICTs, or they could attract new resources specifically provided by other levels of the State. In same cases, though, proposals for integrating ICTs in Participatory Budgeting schemes were able to go far beyond this pragmatic orientation, fostering specific interventions with a view to securing the resources deemed appropriate to enable the experimentation in tandem with a proposal to enlarge democratic participation.

It might be said that, often, the integration of ICTs in the overall PB processes is not conducted so as to form hybrid processes that might combine in a balanced way face-to-face interaction and differentiated technological instruments. In actual fact, some Digital PBs (as that of Belo Horizonte) were created as complementary processes to the territorial-based ones. Thus, under the Digital PB, the choice of priorities is effected individually, without real social interactions, and without the possibility of having this interaction alter individual preferences, much less the possibility of building up collective preferences during the course of the process. Thus, decisions become confused with the vote inherent in any electoral process and the Digital Process shows a completely different logic from the face-to-face one, which declares a mission of building solidarity and capacity of negotiation among social actors. The latter is, indeed, another feature that is important to problematise. As both the Lisbon and the Belo Horizonte case illustrate, the civil society players that are better organised are often able to spend resources on campaigns designed to call for web-voting in favour of their choices. So, although the digitally designed PB makes a strong contribution to mobilise organised civil society, it also creates unequal action-taking capacities as the outcome of available resources. Here, one should recall the example of Vignola, in which the ease through which young members of a Sport Club were able to overcome all the other citizens in "clicking" to vote their priority on-line killed the entire process.

This paper set out to reflect on the trajectory which is slowly modifying the relations between representative democracy and participatory democracy against a backdrop of the fact

[77] Graft and Svenson 2006, see footnote 6.

that these complex relations must be considered in relation to the added factors and challenges presented by the introduction of new technologies aimed at expanding the formal spaces of political intervention. The PBs of Belo Horizonte and Lisbon, as exemplary cases of these relations, served as a script for this debate, complemented by the quoting of other "mirror cases" that can enlighten and contribute to a more articulated perspective on the use of ICTs as a plural category which contains several tools which could be related to several different specific phases of a Participatory Budget.

As can be inferred, resorting to new technologies in participatory processes and policy decision-making takes on very different forms: it can be taken as a limited inclusion, serving as information instruments or, at most, as assisting inspection, monitoring or debate, or, in certain cases, it can make a more advanced use of the potentialities deriving from these, assisting the policy decision-making processes themselves. The cases we have presented throughout represent these different configurations, showing a diffuse research agenda on reaching a "balance" between the different advantages that face-to-face meetings and a "virtual sphere" can provide.

The cases of Belo Horizonte and Lisbon emerge as clear examples of the differences between a 'subordinate' use or a 'coordinate' use of ICTs in democratic processes. In some cases "stepping back" is needed when a mainly Internet-driven conception could threaten the main objectives of the process. The "coordinate model" is a result of applying hybrid or complementary processes that unite forms of face-to-face interaction with different technological instruments/means.

An enlarged conception of e-democracy makes it possible to think that it is not simply governments that can be its agents, but also individuals and organisations within society, who can now establish new forms of information and communication relations. If, on the one hand, governments can use ICTs as a means of increasing participation and legitimising decisions, society can use them as a means of accessing the information relevant for its political organisation and to mobilise around issues it considers pertinent, through (for example) social networking. On the other hand, government use of technologies can strengthen the technocracy specialising in information systems (or *infocracy*), which can attain importance and independence in regard to the government itself[78].

[78] K. Hacker, J. Djik, 200 (see footnote 8)

As shown by Sheila Jasanoff[79], the affirming political literature that the quality of solutions directed at solving problems depends on the adequacy of its initial framing has become an undeniable truth. In this reading, if an issue is too narrowly, or too vaguely, or simply wrongly framed, the solution chosen will suffer from the same ills (*idem*). What the positive examples of Cascais and South Kivu PBs show us is that the 'framing' of the issue is as important as the process itself. If we are faced with iterative processes (as PBs try to be), whoever takes part in them will end by being able to redefine the framing and adapting it to actual needs while the process itself is under way. Because of the novelty of these two experiments, their adaptive capacity and reinvention are still open-ended.

One of the conditions for securing wider citizen participation (which implies ensuring their inclusion in the processes irrespective of gender, ethnicity, age, income, education, inaptitude, language, or technological experience) is the provision of ample and varied means of access, including an understanding and use of these means. A second condition is making the necessary information available, not only to ensure the quality of participation in the deliberative processes (understood here both in the sense of debate and decision-making[80]), but also to ensure its transparency. A third condition regards the diversity of means and processes which make participation viable, including different ways of acquiring information, expression and deliberation, especially on the part of those who will be affected by decisions. A fourth condition is related to responsiveness and government commitment to carry out the decisions made in processes of this nature.

As participation technologies, PBs are in a position to configure processes that instead of reproducing separations which are very much present in several democratic models (separation between representatives and those represented and between specialists and lay-persons), contribute to promoting cognitive citizenship. This capacity requires citizens' involvement – endowing them with decision-making capacities – in processes involving technical dimensions (including social technologies) and which interfere in a sphere of State intervention in an area traditionally configured as the preserve of State regulation. However, neither democratic reinforcement nor the contribution to citizen empowerment can be attained solely through introducing ICTs. In processes such as those presented here – combining social technologies and material technologies – we conclude that the potential for citizen involvement and empowerment

[79] S. Jasanoff, S., Technologies of Humility: Citizen Participation in Governing Science, in: *Minerva*, Vol. 41, 3, 2003, 223-44.
[80] L. Avritzer, Teoria democrática e deliberação pública, in: *Revista Lua Nova*, 50: 25-46, São Paulo: CEDEC, 2000

is more in face-to-face assemblies than in phases more centred on the use of digital technology. In the former, participants must have a good grasp of the process and its working rules in order to participate in it; in the latter, where participation can be reduced to using a given technology, participants do not have to know how the relevant technologies work (telephone, SMS, the Internet, etc.) in order to use them.[81] Summing up, it is not enough to amplify the process democratically in terms of participation, it is also necessary to democratise it in terms of knowledge, especially if we want to shift from *a paradigm of "e-governance"* (conceived as a sum of individual preferences expressed in separated spaces that are not in contact with one another) to *a paradigm of "we-governance"* where the construction of social convergence and the canalisation of tensions into constructive projects would be a central goal.

In fact, is not marginal to observe that when existing instruments of participation do not provide an opportunity to show how society is capable to face complexity, to support solidarity and to negotiate choices in the common interest, a sort of "vicious circle" tends to be activated in which the persons in key roles within representative democracy tend to have a negative image of society (as a set of egoistic and uninformed individuals incapable of making rational choices and having complex visions) and to reduce the spaces of democracy open to the active contribution of citizens[82]. Such a reflection suggests that the activation of "virtuous circles" for fostering spaces of participation capable of redesigning a "highly intensive" democracy is especially likely within a framework of incremental experimentations which step back from using tools that only "count" individual preferences in central positions, instead of activating fruitful processes of collective construction of policies and projects.

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[81] A situation which B. Latour characterised as being the result of the 'black boxing' process, i.e. when technologies function properly, scientific and technological work is invisible. Paradoxically, this means that, as technologies enter our everyday life, the more opaque and obscure they become. See B. Latour, *Pandora's Hope: Essays on the Reality of Science Studies*, Harvard: Harvard University Press, 1999.

[82] The case of Cascais is very interesting in this respect, because when votes had been cast in December 211, the Mayor decided to increase of around 50% the resources devoted to the implementation of most-voted priority. The justification for such a decision, given by the Mayor Carlos Carreiras in the final meeting (organised on November 26, 2012 in the Congress Centre of Estoril) could be meaning that the quality demonstrated by public meetings and final results convinced the administration to trust the process and its audience to a larger extents than what initially imagined.

Note

This article moves forward some reflections on the same issues I started in 2007 with my colleagues Marisa Matias and Eleonora Schettini Martins with the paper "ICT Technologies within the Grammar of Participatory Budgeting: Tensions and Challenges of a mainly 'Subordinate Clause' Approach" presented at the conference "Changing Politics through Digital Networks" (Florence, 5-6 October 2007), and continued with the article "Orçamentos participativos e o recurso a tecnologias de informação e comunicação: uma relação virtuosa?" on the *Revista Critica de Ciencia Sociais*, nº 91/2010 (pp. 169-188), which we wrote together. I would like to thank my two colleagues for allowing me to re-use our previous common work in order to push further our reflection, whose last stage was enlightened by some of the first evidences gathered within the still ongoing project *"Participatory Budgeting as innovative tool for reinventing local institutions in Portugal and Cape Verde? A critical analysis of performance and transfers"* (funded by Portuguese Fundação de Ciencia e Tecnologia- PTDC/CS-SOC/099134/2008). The author would like to thank also Mariana Lopes Alves, Nelson Dias, Francisco Freitas, Anne Pereira, Isabel Guerra, Mariangela Fornuto and Nuno Marques Pereira with whom he shared a lot of ideas within the last quoted project. My gratitude goes also to Nancy Duxbury for her precious and kind help in sending suggestions to smooth the language.